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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

EDITED BY

G. E. MOORE,

WITH THE CO-OPERATION OF PROFESSOR PRINGLE-PATTISON, PROFESSOR C. D. BROAD, AND F. C. BARTLETT, M.A.

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A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—THE EXTERNAL WORLD.¹

By C. D. BROAD.

THE philosophical problem of the external world and our knowledge thereof arises primarily from certain facts about the variations in the sensible appearances of what is regarded as a single physical thing. These difficulties may fairly be called the fundamental ones in the subject, because they are independent of all detailed knowledge about the physical and physiological processes which condition sense-perception. There is of course a further crop of difficulties when the assertions of the physicist and the physiologist on this subject come to be considered in detail. But it is hardly profitable to start from this end, since the alleged facts are stated in terms of the common-sense notion of physical objects and established on the common-sense assumption that perception gives us substantially correct information about such objects. Hence, if the solution of the first problem should involve any profound modification of these assumptions, the alleged facts which give rise to the second problem would need to be entirely restated. The two problems are of course very closely connected, and the relation between them may be roughly summed up as follows. When we leave out of account the physical and physiological details of sense-perception a number of alternative solutions of the first set of difficulties are open to us. When we take these details into account some of the solutions which seemed plausible

¹ Read at the meeting of the Mind Association at Cambridge, on July 9th, 1921.

become much less so, whilst others, which would have seemed at first sight needlessly complex, even if they had suggested themselves at all, may be found necessary in order to do justice to all the facts.

Now there is one general remark that may be made at the outset. Since the problem arises through the various appearances of what is supposed to be a single physical object the solution must be sought in two directions. On the one hand we must try to clear up the notion of sensible appearance, on the other we must try to clear up the notion of physical objects. There is no incompatibility between the mere facts that something appears to you to be circular and that something appears to me to be elliptical at the same moment. There is again no incompatibility between the mere facts that something appears to me now to be round and that later on something appears to me to be elliptical. The incompatibility is not between these experiences as such, but between them and the supposed facts that the something which appears to you to be circular and the something which appears to me to be elliptical are the same something, and that this is really round. Thus all progress in the solution of the problem must take the form of analysing the obscure notions of sensible appearance and of physical object. Neither of these is clearly conceived by common-sense, but it may fairly be said that we all have a considerably more definite idea of what we mean by a physical object than of what we mean by such statements as that something appears round or elliptical. (i) A physical object is conceived to be something which at least is public; it is neither yours nor mine in the sense in which certain wishes and feelings belong wholly to me and certain others wholly to you. We do of course apply possessive adjectives to certain physical objects; we talk of my umbrella as well as of my toothache. But it is clear that the possessive adjectives are used in different senses; you can never literally make my toothache yours, whilst it is only too fatally easy for you to do so with my umbrella. (ii) A physical object is conceived to be capable of appearing in many different ways at once, and again to be capable of appearing differently at different times, without having changed. This statement is by no means clear or definite. No doubt it would be commonly held that a physical object could not appear differently if it had not changed at least in its relations to something else. Still there is felt to be some important sense in which a physical object can remain unaltered whilst some of its appearances change. Conversely there is felt to be some important sense

in which a physical object can change without appearing different. These two characteristics of publicity, and a certain relative independence of appearances, are necessary but not sufficient to the common-sense notion of a physical object. They both apply to the volitions of God on Berkeley's theory, and to things-in-themselves on Kant's theory. Yet it would commonly be held that, if either of these theories were true, there would be no physical objects. The reason seems to be that, on such theories, the objects, though public and relatively independent of their various appearances, are not sufficiently like what they appear to be. I do not know that common-sense would object to physical objects having many properties which they do not appear to have and which are very different from any that they appear to have. Again, it is prepared to admit that many properties which they appear to have do not belong to them. But it demands a certain minimum of resemblance between the qualities which physical objects have and those which they appear to have. At least something corresponding to apparent shape, size, and position seems to be demanded.

Now of course the first two demands can be fulfilled in a vast variety of ways. Almost every system of philosophy except pure subjective idealism fulfils the first two. The chief difficulty is about the last. There are or seem to be very great difficulties in fulfilling it literally. But in itself the third demand is not precise; it is a matter of more or less in any case; and again the question will arise: What do you mean by saying that such and such a physical object has such and such a property? If you insist on a very literal interpretation of having such and such a quality we must deny that bodies, as conceived by science, are coloured, and that physical objects, as conceived by Mr. Russell in his *Lowell Lectures* or by Leibniz, have shapes and sizes. A class of sensa or a group of confused monads with very similar points of view does not literally have shape, size, or position. Yet it is very easy, as Dr. Moore puts it, to say that in a Pickwickian sense bodies, on the scientific theory, are coloured, and Russell's classes of sensa or Leibniz's colonies of bare monads extended. The question is: How Pickwickian may we become in our interpretations of common statements before we have to reject the notion of physical objects altogether?

As regards the meaning of sensible appearance we have almost an open field, for common-sense and natural science have no clear views on the matter at all. Naturally we find that various possible analyses of sensible appearances will

require different views about the nature of physical objects and some may even require the rejection of physical objects. Conversely certain views of physical objects demand certain types of view about the proper analysis of sensible appearances, *e.g.*, scientific theories about light, heat, sound, etc., have led to the view that sensible appearances are effects of physical objects working first on our bodies and thence on our minds. Now I might sum up the work that really matters which has been done on our subject in the last few years in the following way. It starts, in England at any rate, from Dr. Moore's *Refutation of Idealism*. I do not think, and I do not suppose Dr. Moore thinks, that that article refuted Idealism. But it did point out the scandalously ambiguous way in which the word 'sensation' was used, and led to the distinction being drawn between sensations and sensa. Now, starting from that distinction a great deal of very important work has been done on the following lines. A sensation has been supposed to be an act of direct acquaintance with a sensum. Since the sensum is no longer confused with the sensation, one ground at least for regarding the sensum as mental vanishes. It is embarrassing to say that a state of mind is round or hot or red, but we need not hesitate to ascribe these qualities to sensa. This leads to a definition of sensible appearance. When we say that the physical object *x* appears to us to be circular we mean on this theory that we are aware of a sensum which really is circular, and that this sensum is connected in some peculiarly intimate way with the physical object *x*. The essence of this theory of appearance is that whenever I judge that something *appears* to me to have the quality *q* there must be an object with which I am acquainted which *really does have* the quality *q*. This object is the sensum. It is, I think, admitted that sensa with which I am acquainted may have other qualities beside those which I notice in them; it is even held by many people that arguments like Stumpf's prove that this must in many cases be so. But it is held that, at any rate, they must have all those positive sensible qualities that they seem to me to have. In fact, if the present analysis of seeming to have a quality be accepted as complete, it is tolerably clear that we cannot literally talk of sensa *seeming* to have qualities; they just have them and we notice them.

Some such theory as this has at least the merit of giving a clear and intelligible meaning to the statement that a physical object appears to have such and such a quality. Until very lately most of us have regarded it as the only

tenable analysis of such statements. The work of Prof. Dawes Hicks and the latest work of Dr. Moore do however suggest that a very different mode of treatment is possible. I shall confine myself to developing some of the consequences of the older view, partly because this will occupy all my available time, and partly because the second has not as yet been very fully developed. It must be understood however that I think that the alternative theory of appearance is logically possible and may prove to be of great importance.

Certain objections which many people apparently feel to the theory just sketched may be removed at once. It is often objected that we are not aware of *sensa* and their properties, as a rule, until we specially look for them. It is a fact that it often needs a good deal of persuasion to induce a man to believe that when he looks at a penny sideways it seems elliptical. It is argued that we have therefore no right to hold that the man is directly acquainted with an object which is in fact elliptical. This is a weak argument. If the theory were that the man first becomes aware of a *sensum*, then judges that it is elliptical, and then infers from this premise and the laws of perspective that he is looking at a round physical object, the argument would of course be fatal to the theory. But this is quite obviously not what happens. The best analogy that we can have to the relation between our sensing of *sensa* and our perception of physical objects is to be found in the case of reading a book in a familiar language. What interests us is the meaning of the printed words, not the peculiarities of the print. We do not explicitly notice the latter unless there is something markedly wrong with it, such as a letter upside down. Nevertheless if there were no print we should cognise no meaning, and if the print were different in certain specific ways we should cognise a different meaning. We can attend to the print itself, if we choose, as we do in proof-reading. In the same way we are not generally interested in *sensa*, as such, but in what we think they tell us about physical objects. We therefore pass automatically from the *sensum* and its properties to judgments about the physical object and its properties. If, however, the *sensum* is queer, as when we see double, we notice its peculiarities as we notice an inverted letter. And again we seem to be able to detect the properties of *sensa* and contrast them with those which we ascribe to the physical object even in normal cases if we specially try to do so.

Having got rid of this preliminary objection, a question at once arises as to the status of *sensa* and their relation to physical objects. Although *sensa* are not sensations and

therefore are not necessarily states of mind, it does not follow that they may not be states of mind. Philosophers like Stout, who have admitted the distinction between sensations and *sensa*, have yet held that *sensa* are states of mind. It is true that they will not be acts like sensation, perception, judgment, etc.¹ But Stout, at any rate, holds that there are states of mind which are not acts. I understand that what he means by a presentation is an entity which is mental but is not an act. An act is apparently a state of mind which is directed on an object; an act may happen to be an object of another act, *e.g.*, of introspection, but it need not be so. A presentation is mental and *may be* an object, but it does not itself *have* an object. Whether presentations *must* be objects I am not quite sure, but I do not think that this is supposed to be necessary. If anything is a presentation, in this sense, bodily feelings, like headache and stomach-ache, are the most plausible candidates. Now I understand Stout's view to be that *sensa* are presentations and that they are of the same general nature as headaches and stomach-aches. Stout does not seem to me to state very clearly why he believes this, but I think it is possible to produce three more or less plausible arguments which have probably influenced him.

(i) If we take publicity as a mark of the physical and privacy as a mark of the mental, *sensa* seem to fall on the mental side. It is at least very doubtful whether two people who say that they are looking at the same physical object are ever aware of precisely similar *sensa*, and still less of the same *sensum* at the same time. This seems to suggest that *sensa* are mental, at any rate in the sense of being mind-dependent. If we look more closely, however, this conclusion does not seem to be necessary. The facts are much better explained by supposing that *sensa* are partly dependent on the positions and internal structure of the percipient's body. Since no two people's bodies can be in precisely the same place at precisely the same time it is not surprising that two men's *sensa* should differ. And since the internal state of two human bodies is never precisely the same it is still less surprising. This explanation not only accounts as well for the facts as the view that *sensa* are mind-dependent; it accounts a good deal better for some of the most striking of the facts.

¹ I understand that Stout no longer holds the views that I here ascribe to him. I have not altered the form of my statement, because the view which I am here discussing is that of his last published book, the third edition of the *Manual of Psychology*. Later developments have as yet only been revealed to a small circle of the elect at Edinburgh.

The orderly variations in the shapes of sensa as we move about are explicable if we suppose sensa to be partly conditioned by the positions of our bodies. The assumption that they depend on our minds provides no explanation whatever of such facts.

There is however a better form of the argument, which seems to me to have been somewhat overlooked by people like myself who take the opposite view to Stout. It does seem to me to be true that in certain cases our past experience and our present expectations actually affect the properties of our sensa, and not merely the judgments about physical objects that we base upon them. I will give two examples. (a) When I look at the staircase figure in James's *Psychology* it seems to me that it actually looks different from time to time, and that I can notice it changing with a 'click' from a staircase to an overhanging cornice. And it seems to me to change as I concentrate my thoughts on the idea of a cornice or the idea of a staircase. On the present analysis of appearance it is clear that the actual sensum must change, and not merely my judgment about physical objects; on the contrary, it is the change in my thought about physical objects which changes the sensum. (b) When I turn my head in a room the visual sensa of which I continue to be aware are not affected with sensible movement. If I put my glasses a little out of focus and turn my head the sensa do move. Whether they move or not seems to depend on my previous experiences and present expectations. The whole psychology of vision is full of similar cases. Such examples might seem to suggest that sensa are, at anyrate in part, mind-dependent. I think that this might be met by taking a less simple-minded view of the dependence of sensa on the percipient's body. The facts just adduced do suggest that the present sensum depends in part not only on the present state of the body but also on past states of it. Or, to put it in a more usual way, we must say that among the bodily conditions of sensa are the present traces left by past experiences. These traces, so far as I can see, may be wholly bodily. I therefore regard the first argument as failing to prove that sensa are mind-dependent, but as strongly suggesting that they are to a great extent body-dependent.

(ii) The second plausible argument which might be brought to prove that sensa are presentations in Stout's sense is the following. If we consider our various sensations we seem able to arrange them in an order, starting with sensations of sight, passing through taste and smell, and ending up with bodily sensations like headache. Now as regards

the top members of the series the distinction between sensation and sensum seems perfectly clear. A sensation of red seems clearly not to mean a state of mind which is red, but a state of mind which has a red object. And it does not seem particularly plausible to regard a red patch as mental, or to hold that when we are aware of a red patch we are really introspecting. If we now pass to the bottom members of the series the opposite seems true. It is by no means obvious that a sensation of headache means a state of mind with a headachy object; it seems on the whole more plausible to say that it is just a headachy state of mind. The distinction between act and object seems to have vanished, and, since there is clearly *something* mental in feeling headache, just as there is in sensing red, it seems plausible to hold that the whole thing is mental. Now this fact about the top and bottom members of the series would not greatly matter, were it not that the two types of sensation seem to melt into each other insensibly towards the middle. It is about equally plausible to speak of a sensation whose object is sweet or to treat the whole thing as an unanalysable feeling with the quality of sweetness. Common language recognises this distinction; it talks equally of a sensation of headache and of a feeling of headache or a headachy feeling; but we only speak of a sensation of red, and never of a feeling of red or a red feeling. We talk of a sensation of smell, Scotsmen generally talk of 'feeling' a smell. Now of course the fact that all these experiences are classed together as sensations and that they melt into each other in the middle of the series encourages people to try to treat them all exactly alike. If you do this you must either hold that it is a mistake to suppose that a sensation of red *can* be analysed into an act of sensing and a red sensum, or you must hold that it is a mistake to suppose that a sensation of headache *cannot* be analysed into an act of sensing and a headachy sensum. Stout takes the former alternative, Laird and Alexander take the latter. If you take the former, sensation and sensum fall together, even in the case of sight; and, since the experience as a whole is certainly mental, you have to say that a sensation of red = a red sensum = a feeling which is red.

Now it is clear that, if you insist on treating all experiences, which are called *sensations*, alike you might equally well argue in the opposite direction, as Laird and Alexander do. You might say: A sensation of red means an act of sensing a red sensum, and similarly a sensation of headache means an act of sensing a headachy sensum. There are two remarks to be made about this. (i) I do not find either Stout's course

or the Laird-Alexander course very plausible, but if I were compelled to take one or the other I should prefer the latter. It seems to me much more certain that in a sensation of red I can distinguish an act of sensing and a red object than that a sensation of headache cannot be analysed into an act of sensing and a headachy sensum. (ii) Even if the Laird-Alexander analysis of bodily feelings could be substantiated I think that Stout would have another fairly plausible argument up his sleeve. It does not follow, as these philosophers seem to suppose, that to prove that a sensation of headache is an act of sensing a headachy sensum is equivalent to proving that a headachy sensum is non-mental. We still have the original question whether *sensa* are mental or not on our hands. And a supporter of Stout's view might quite reasonably argue as follows: 'Even if headachy *sensa* must be distinguished from the act of sensing them it is surely clear that they cannot exist when they are not sensed. An unfelt headache seems an absurdity. If this be true of headachy *sensa* is it not probably true of red and of all other kinds of *sensa*? But, if so, *sensa* are mental, at any rate in the sense that they only exist when someone has a sensation of which they are the object.' I think this would be a plausible argument, but I do not think it is a sound one. (a) As a matter of plain fact I do not find any difficulty at all in conceiving the existence of unsensed red patches, whilst I do find considerable difficulty in conceiving the existence of unfelt headaches. This suggests that there must be some important difference between the two kinds of *sensa*. (b) Moreover I think we can see what the difference is. Our main interest in bodily feelings is that they are pleasant or painful; sensations of sight are as a rule hedonically neutral. Now I am quite prepared to believe that an object has to be cognised in order to be pleasant or painful to us. It might therefore be quite true that an unfelt headache would not be a pain, and, since we are mainly interested in it as a pain, we are liable to think that an unfelt headache would be nothing. This is of course a fallacy, all that we have a right to say is that an unfelt headache would not be painful not that it could not exist.

I think, however, that there is no need to insist on the Laird-Alexander view of bodily feelings in order to deal with the present argument. It seems to me that the simplest and least doubtful way of dealing with the whole matter is the following. The word *sensation*, as commonly used, is defined not by introspection but by causation. We call any state of mind which is the immediate response to a nervous

stimulus a sensation. Now, since sensations are not defined psychologically but causally, it is surely very likely that they may include two different classes of experience, one of which can be analysed into act and object and the other of which cannot. These might be called respectively genuine sensations and bodily feelings. The mere fact that both are *called* sensations is a very poor reason for holding that the same analysis must apply to both of them. It is true that there are marginal cases where it is difficult to say into which class an experience should be put, but this ought not to make us slur over the plain introspective difference between the top and the bottom members of the series. The top members do seem to be acts with *sensa* as objects, and there seems no intrinsic reason for thinking that those *sensa* are either of the nature of feelings or are such that they can only exist when sensed. And no analogies drawn from the bottom members of the series form any logical argument against this view.

(iii) The third argument for regarding *sensa* as mental is their resemblance to images, which are supposed to be indubitably mental. The analogy may be admitted, though there is some intrinsic difference which it is hard to describe. But it seems to me very doubtful whether images are mental in any important sense. It is quite true that most if not all images depend in part on our past experiences and that many depend in part on our volitions. Both these facts, however, seem compatible with the view that images depend on our bodies, and do not necessitate the view that they depend on our minds. Involuntary images may depend on processes that go on inside our bodies without our volition. Voluntary images no doubt depend on our minds in the sense that they would not exist there and then if we did not will that they should; but the same may be said of a chemical reaction in a test-tube:—it would not happen if we had not deliberately put the reagent there and held the tube over a flame. No one considers that this renders the chemical reaction in any important sense mental. In the same way it seems to me likely that when we voluntarily call up an image we simply voluntarily throw some part of our body into a certain state, and this bodily change is a necessary condition of the existence of the image.

I conclude that the arguments to prove that *sensa* are mental, in the sense of being presentations, or in the sense of only existing when the mind is aware of them, are inconclusive though plausible. It does seem necessary to hold that they are in some sense partially conditioned by the

percipient's body, including in this the traces left by past experiences, but it does not seem necessary to bring in the percipient's mind.

We can now pass to the question of how *sensa* are related to physical objects. This is a long and difficult story and it will be better to treat it in the following way. Let us at once raise the question: On the present analysis of what is meant by sensible appearance what right have we to believe in physical objects, and what can we know about them? We must remember at the outset that the irreducible minimum that an entity must fulfil to count as a physical object is that it shall be common to a number of observers, that it shall be capable of presenting different appearances without necessarily undergoing any change of quality, and that it shall not be too unlike its appearances in quality. As we move about and continue, as we put it, to look at the same thing, we are aware of a series of *sensa* very similar to each other in shape, size, colour, etc. There are slight variations which can be noticed if we inspect carefully enough, and these variations are as a rule reversed if we retrace our steps. We need some explanation of this combination of a predominant agreement with slight and regular variations. The most plausible explanation is that the series depends in some way on two sets of conditions. One of these is relatively permanent, and accounts for the predominant agreement; the other is variable and accounts for the minor variations. If we feel an object, such as a penny, and meanwhile look at it from various points of view, the series of predominantly similar but slightly variable visual *sensa* is accompanied by an invariable tactual *sensum*. The shape of the tactual *sensum* is very much but not exactly like those of most of the visual *sensa*. It is exactly like that of the visual *sensa* which are sensed from a certain series of positions. As regards other qualities there is complete difference. The visual *sensa* have colour and no temperature or hardness; the tactual *sensum* has hardness and coldness but no colour. These facts again fit in well with the notion of two sets of conditions, one permanent the other variable. We have to explain the predominant agreement as to shape between sight and touch combined with the minor differences. It seems reasonable to assume a common set of conditions for sight *sensa* and touch *sensa*, combined with a different set in the two cases. Lastly when we compare notes with other people who, as we say, are looking at the same object, we find that they too are aware of a series of *sensa* predominantly similar to, but slightly different from, ours. It is therefore reasonable to suppose that there is a

set of conditions common to their *sensa* and ours which accounts for the predominant agreement of the two. In addition there are variable conditions, one set of which has specially to do with me and another specially to do with the other man. These account for the minor differences. It seems to me therefore that we have good ground for supposing that there are physical objects, in the sense of conditions which are common to us and to others and are relatively permanent, and that these, in combination with other conditions which are variable as between different people at the same time and the same person at different times, in some way condition our *sensa*.

These common and relatively permanent conditions might, however, be so utterly different from our *sensa* in their properties that it would be unreasonable to call them physical objects. The question therefore arises: Can we determine anything further about their qualities either with certainty or with high probability? I do not think that we can determine anything further with complete certainty, but I do think that we can determine something further with very great probability. It is perfectly true that a set of conditions, and especially a set which is only one factor in a complete condition, must not be assumed to resemble in qualities that of which it is a partial condition. But, on the other hand, it is equally unreasonable to suppose that the two *cannot* resemble each other. It is therefore perfectly legitimate to postulate hypothetically any amount of resemblance that we like. If now we find that by postulating certain qualities in the common conditions we can account for the most striking facts among our *sensa*, and that without making this assumption we cannot do so, the hypothesis in question may eventually reach a very high degree of probability. A group of visual *sensa* which we ascribe to a single physical object are related projectively to each other and to the tactual *sensum* which we ascribe to the same object. If we regard their permanent conditions as having something analogous to the shape of *sensa* we can explain the shapes of the various *sensa* as various projections of the shape of their common permanent condition. If we refuse to attribute anything corresponding to shape to the permanent condition we cannot explain the relations between the shapes of the various *sensa* of the group. This does not of course absolutely prove that physical objects have shape, but it does suggest that it is a very plausible hypothesis. It is a permissible one, since there is no reason why the common conditions of our *sensa* should not have shape; and it is a reasonable one since with

it we can and without it we cannot account for the shapes of our *sensa*. This appears to me to be the sense in which it is reasonable to ascribe primary qualities to physical objects.

What about secondary qualities, such as colour and temperature? We know that Locke, Descartes, and the scientists, hold that we have no right to ascribe them to physical objects, whilst Berkeley and many other philosophers have held that primaries and secondaries must stand or fall together. What is the truth of the matter? The first thing is to try to state the scientific doctrine in a clear and intelligible form. Unquestionably colours and temperatures belong to *our sensa* just as much as shapes and sizes. The assertion of the *physical* reality of primaries and the denial of the *physical* reality of secondaries comes to this. Shapes and sizes belong to physical objects in the same literal way in which they belong to *sensa*, and from the shapes and sizes of our *sensa* we can infer with reasonable probability the shapes and sizes of physical objects. Colours, temperatures, etc., belong literally to *sensa*; they only belong to physical objects in a derivative and Pickwickian sense. There must be something in physical objects that conditions the colours, temperatures, etc., of our *sensa*, but we have no reason to believe that it is colour or temperature. We have seen that there is reasonably good ground for the positive part of this doctrine; is there equally good ground for the negative part? I think that the negative part expresses an important fact but needs to be stated in a much more guarded way.

(i) It seems to me certain that if physical objects literally possess shapes and sizes they must possess some other qualities related to shape and size in the same sort of way in which colour and temperature are related to the shapes and sizes of *sensa*. *I.e.*, shape and size imply something that can be spread out and cover an area or fill a volume. (ii) There is no obvious reason why these other qualities, which *must* be present, should not be colours and temperatures. On the other hand of course they *need* not be so; so long as they can cover areas and fill volumes they may be qualities that never belong to *sensa*. (iii) Whilst we found that it did help us to explain the various shapes of our *sensa* if we supposed that their common conditions have shape, it does not apparently help us at all to explain the colours and temperatures of *sensa* if we assume that their common conditions have colour and temperature. This does not prove that they do not have colour and temperature, it only shows that it is not a verifiable hypothesis and that we cannot assert it with any strong probability.

The view that I have just been stating I will call the *Critical Scientific View*. It is simply an attempt to state clearly, in terms of the particular analysis of sensible appearance which we are at present assuming, the view about the external world which is apparently held by scientists. I think it is a self-consistent theory, when stated in these terms, but I certainly do not think that it is an ultimately satisfactory one. It forces on us at once the question which I have used it to lead up to: What is the status of sensa in nature and how are they related to physical objects? The theory regards physical objects as conditions of our sensa. That physical object which is our body, in conjunction with other physical objects, in some way conditions the sensa of which we become aware; and these sensa in turn give us highly probable knowledge about the shapes, sizes and motions of physical objects, but no certain knowledge about their other properties. Now what exactly is meant by this phrase 'conditions' which I have so far purposely accepted without cavil? In the first place, what is it that processes in physical objects and in our own bodies condition? Do they produce the sensa? Or do they cause us to become aware of sensa that already exist? Or do they both produce the sensa and make us aware of them? These questions the Critical Scientific View leaves quite vague. Let us call these three alternatives respectively the *Creative Theory*, the *Selective Theory*, and the *Mixed Theory*.

The chief merit of the Creative Theory is that it reduces the number of sensa. We find it difficult to believe that all the sensa that anybody with any sort of body could sense from any place are actual existents which would have to be mentioned in any complete inventory of the universe. This may of course be the merest prejudice. If we take the Creative Theory to assert that sensa are produced by the interaction of living bodies with other physical objects, and that they last only so long as these processes go on, we avoid this embarrassment. And if in addition we suppose, as the Mixed Theory does, that the same processes cause the mind attached to the living body to sense the sensa thus produced, we reduce sensa to quite manageable numbers. We must remember however both that our objection to the existence of enormous numbers of sensa may be only an æsthetic prejudice, and that some form of the Selective Theory may be able to reduce the number to manageable limits, or in some other way to obviate this objection. The great objection to the Creative Theory as commonly held is that it assumes something like creation out of nothing as a result of physical

processes. We are liable to slur this over when we talk of our body in conjunction with foreign bodies *causing* sensa. By using the familiar word 'cause' we think we are dealing with the familiar case of a change in one existing substance being regularly followed by a change in the same or another existing substance. But this is not so. A physical process on this theory produces a sensum out of nothing, and a sensum—for however short a time it may last—is not a change in another substance but is of the nature of a substance itself. We have, so far as I know, no experience of this sort of causation and we ought to be very cautious in asserting it.

We may therefore turn to the Selective Theory. On this view the various physical and physiological processes that condition sensation do not *produce* sensa. The sensa in some way already exist. What these processes do is to determine which out of the whole set of existing sensa we shall become aware of. The pressing difficulty of the Selective Theory is to give a satisfactory account of the relation between the world of sensa, out of which certain physical and physiological processes present a selection to our minds, and the world of physical objects. What we should like to do would be to say that sensa are in some way parts of physical objects. Now the term 'part' is highly ambiguous, and again the notion of physical object is by no means definite. There is therefore a very wide range of meanings which we can give to the statement that *x* is a part of *y*, and again there is a very wide range of meanings that we can give to the statement that *y* is a physical object. Our best hope then is that we may find a meaning of 'part' and a meaning of 'physical object' in which it will be true to say that sensa are parts of certain entities and in which it will not be too wildly Pickwickian to call those entities physical objects. When I look at a penny from the side I am aware of a brown elliptical patch. Inside this there is a figure of Britannia. The figure of Britannia is a part of the brown elliptical patch in the most obvious and literal sense of part. Now a penny is commonly supposed to be an object which is round and brown in the same literal sense in which the sensum is elliptical and brown. It seems quite certain that the elliptical sensum is not a part of this supposed round object in the literal sense in which the figure of Britannia is a part of the elliptical sensum. If therefore there is a physical penny, and the various sensa are parts of it, it seems certain either that the sensa are not parts of the penny in the literal sense in which Britannia is part of the sensum, or that the penny is not

round and brown in the literal sense in which the sensum is brown and elliptical. Most probably we shall need to modify both the meaning of 'part' and the conception of the penny. Now I think it is best to modify as little as possible to start with, and only take 'parts' and 'pennies' in more and more Pickwickian senses as we are forced to do so by further reflexion on the facts. I shall therefore begin by working out in my own way a suggestion which is put forward rather incidentally in Alexander's *Gifford Lectures*. This suggestion entails the minimum of modification, and although I do not think it can be made to cover all the facts, I do think that it contains an important truth. In one sense of part a section of a solid by a plane may be called a part of it. In this sense a certain pillar contains an infinite number of parts of various shapes, all the shapes being conic sections of some kind and of various degrees of eccentricity. Now, taking the most common-sense view possible of a penny, it is not a momentary object; it persists through time. The penny is really to be identified not with a round brown thing at any one moment but with the history of a round brown thing through a long stretch of time. We cannot neglect the time dimension of the penny. Suppose now for the sake of simplicity that the penny keeps in the same place for ten minutes. This part of its history will be represented by a circular four-dimensional cylinder. Any section of this normally to the time-axis will consist of a set of contemporary event-particles arranged in a circle. But suppose we take a section of it which is not normal to the time-axis. This will consist of a set of non-contemporary event-particles; the more inclined to the time-axis the section is the greater will be the time-lapse between the earliest and the latest event-particles in it. If pennies do persist through time there must be non-simultaneous sections of their history and these sections will be parts of their history in the same general sense in which a section of a momentary pillar is a part of the momentary pillar. Let us call such sections *Historical Sections*, and let us call sections consisting entirely of simultaneous event-particles *Momentary Sections*. Now our notion of shape is defined in terms of Momentary Sections; we have not as a rule considered the case of historical sections. We cannot therefore say off-hand what an historical section of an object, all of whose momentary sections are circular, would look like if we could see it. It is obvious however that a momentary section is a limit of a series of historical sections as the time-lapse between the earliest and latest event-particle in the section becomes smaller and smaller.

It is therefore not unreasonable to suppose that, if we could see an historical section at all, it would look something like a momentary section, and that it would look more and more like a momentary section the smaller was the time-lapse between its earliest and latest event-particle. It seems then not unreasonable to suppose that if we could see an historical section of such an object it would look elliptical, and that the ellipse would be more and more eccentric the more historical the section was. On the other hand we might fairly suppose that the ellipse would be in some way queer, that it would not look exactly like a momentary section of an elliptical object. So much we may fairly say, considering the whole matter from the point of view of the object. Let us now consider the matter from the point of view of visual sensa. We see things by light that travels from them to us, and light travels with a very great but finite velocity. If I look at a penny from the side and take a perfectly common-sense view of what a penny is, it is certain that the light that reaches me from the nearest point must have started later than that which reaches me from the furthest point and gets to my eye at the same time. It is clear then that the light that reaches my eye at a given moment from the boundary of the penny belongs to event-particles of different dates. If we suppose that what I am immediately aware of by sight at any moment is those event-particles from which the light that reaches me at that moment started, it is certain that I shall be aware of an historical section of the penny and not of a momentary section. The section will of course be very nearly momentary, because of the great velocity of light and the small size of the penny. We have argued that, whilst we cannot say off-hand what such a section would look like, it is not unreasonable to suppose that it would look like an ellipse with something queer about it. Now the sensum of which I become aware when I look at a penny from the side *is* an ellipse with something queer about it. I could make an elliptical ring of the same shape as the sensum; but it would only look like the sensum in shape if I held it normally to my line of sight. If I laid it down flat like the penny it would not present the appearance that the penny does. Conversely the elliptical sensum is lying down flat and not standing up normally to my line of sight. No ellipse whose parts are contemporary could agree with the sensum both in shape and in situation relative to me. It therefore seems extremely plausible to hold that our visual sensa are in general historical sections of physical objects and that these sections are cut for us by the situation of our bodies with

respect to the object that we are looking at and by the finite velocity of light. Such a theory has manifestly great advantages. The various *sensa* always exist and are parts of the physical object in a perfectly intelligible sense. On the other hand they only exist in the way in which the various possible sections of a block of stone exist in it and we do not feel any embarrassment in supposing this kind of existence for *sensa*.

Doubtless some features that are stressed by this theory are necessary to explain the facts about the physical world and our *sensa*. At least it is evident that we must allow for the fact that physical objects are extended in time as well as in space. But it is quite certain that the theory takes far too simple-minded a view of physical objects. It takes for granted that all the *sensa* which we get in connexion with a penny are in one place, which is the place of the physical penny. And it hardly recognises the difficulties involved in saying that the penny is round. Presumably the latter statement must mean that all momentary sections of the history of the penny are round in the sense in which a *sensum* is round. The evidence for this must be that the penny looks round if you look straight down on it and that it always feels round. Now the roundness of the tactual *sensa* needs some explanation on the section theory. Presumably what is meant is that if we run our fingers round the edge there are no sharper and blunter features in our *sensa* as there would be in the case of an acute ellipse. Now when we run our fingers round a circular plane we are feeling a set of event-particles which lie on a helix in space time. If we proceed with an absolutely uniform velocity this helix will be everywhere alike, but the slightest variation in our velocity will involve a variation in the pitch of the helix. If *temporal* differences be interpreted as variations from uniform *spatial* curvature in the case of sight, it is curious that this does not happen in the case of touch. I do not think that it does happen. When I move my finger with a non-uniform velocity round the edge of a penny it does not cease to feel uniformly round. Of course we are here dealing with velocities of utterly different orders of magnitude, *viz.*, that of light and that of my finger, and we are dealing with two senses of very different acuteness. We shall have to suppose that extremely minute time-differences are registered by sight as quite marked variations of spatial curvature, whilst quite marked differences in the velocity of the finger are not registered by touch as variations in spatial curvature. All this shows that the theory thrown out by Alexander and

further elaborated here by me needs a good deal of further complication even as regards shape. It is still more clear that the theory is unduly simple-minded when we begin to consider the places of *sensa* as well as their shapes.

We do not only find that the shapes of *sensa* connected with a given physical object are different from the shape that we ascribe to the object. We also find that *sensa* are liable to turn up in places which are remote from the place where the object is commonly said to be. This is always liable to happen if we look at anything through a non-homogeneous medium, or if a mirror be introduced, or even if we squint. Very often the visual *sensa* are doubled and the two are seen in markedly different places. Now any satisfactory theory will have to take account of these partly abnormal *sensa* and explain how they are related to physical objects. Let us consider the case of mirror-images. These are seen as far behind the mirror as the *sensa* seen by direct vision are in front of it. Nothing similar can be felt in the places where mirror-images are seen, and they are apparently quite independent of any physical object that may exist there. It is thus practically impossible to combine the view that all visual appearances are historical sections of the objects of which they are said to be appearances with any simple-minded view of physical objects and their places. Mirror-images are not sections of the object of which they are images, for they are in the wrong place. They are not sections of objects on their own side of the mirror, for they seem to be absolutely independent of anything that may exist there. The embarrassment that we feel about such *sensa* is that they belong to certain physical objects from one point of view and not from another. They are like a certain group of *sensa* in a different place and they vary with these, but they are spatially discontinuous with them. We have two different criteria for assigning a given appearance to a given physical object. One is certain relations of resemblance and concomitant variation between this *sensum* and a certain group of other *sensa*. The other criterion is the compresence of this *sensum* with a group of others which are all in the same place. Generally these two criteria point in the same direction, but in the case of mirror-images they point in different directions and we feel puzzled.

It is pretty evident that the whole notion of 'place,' which has previously been taken for granted, needs to be carefully considered, and the subject of 'date' will also have to be overhauled. This is unfortunately a horribly difficult subject, as anyone who reads the chapters on Spatial Perception in a

good psychology book will see. It has, I think, been very much neglected by realistic writers. Prof. Whitehead has the great merit of seeing its importance, but I find his actual statements on the subject extremely difficult to understand. It is probably necessary to begin by distinguishing between various senses of being in a place. No doubt our *criterion* for saying that such and such a physical object is in such and such a physical place is that certain *sensa* are in such and such a sensible place. It does not follow from this that what we mean by physical place is the same as what we mean by sensible place, or that what we mean by saying that a physical object is in a certain physical place is the same as what we mean by saying that a *sensum* is in a certain sensible place. I cannot profess to have any satisfactory theory on the subject, and must content myself with throwing out a few disjointed remarks. Let us begin with visual *sensa*.

It seems to me that when I open my eyes here and now I see various coloured patches at various distances and in various directions. It appears to me to be as clear that I see this characteristic of distance as that I see the colour or the shape. I am quite prepared to believe that unless I had had experiences of movement and touch in the past my visual *sensa* would not now be at various distances and in various sensible places. This does not prove that there is no such thing as visual position and distance here and now, but simply that the particular visual positions and distances of particular present *sensa* are not wholly determined by the present physical stimulus to my optic nerve. Now let us consider tactual *sensa*. To get a certain tactual sensation I have to move about in various ways and thus experience a series of muscular sensations. If visual distance and direction were not a primitive factor in my experience I do not think that these muscular sensations would ever have been interpreted in terms of distance and direction. As it is, it seems to me that sight supplies the *general framework* of the notion of distance and position, whilst muscular sensations fill in most of the *quantitative detail*. Now when I am aware of a visual *sensum* there is a certain position of my head in which I see the *sensum* most clearly. If I now 'follow my nose,' as we say, I experience a series of very similar visual *sensa* all the time, and eventually as a rule become aware of a tactual *sensum* of correlated shape. The place of the physical object is essentially defined by the place where this tactual *sensum* is, just as the shape of the physical object is essentially identified with the shape of this tactual *sensum*.

Now, as a rule, when other people are aware of a visual sensum substantially similar to mine and when they turn their heads so as to get maximum clearness of vision and follow their noses, their course intersects mine and we come in contact with each other and with the tactual sensum together. Thus the place of the physical object becomes the common intersection of your course and my course when we follow our noses and both try to get the tactual experience with the minimum of muscular movement. Now take the case of the mirror. Suppose you see an object by direct vision and I see its mirror-image. If we both follow our noses we do not come in contact with each other and with a correlated tactual sensum at the same time. I get no correlated tactual sensum at all, I just walk into the mirror. Your course may intersect mine, but you get your tactual sensation long before it does so. To sum up, I think that it is only in the case of visual sensa that distance and direction are actual sensible qualities like shape and colour; tactual sensa as such do not have sensible distance. Their places are the interactions of those lines of motion that have to be traversed before the tactual experience is obtained. Owing to correlations between these series of kinæsthetic sensations and changes in visual size and distance, the former are interpreted as distances. This is quite compatible with the fact that visual distance, as an actual sensible quality, does not become developed in any detail apart from experiences of movement. Sight makes us acquainted with the attribute of distance in a very vague and undifferentiated form, touch not at all. On the other hand the detailed differentiations of distance into definite distances and of direction into definite directions is causally dependent to a great extent on experiences of touch and movement. Now it seems theoretically possible to take two different lines, starting from these facts. (i) You may distinguish visual space, tactual space, and other sensible spaces from physical Space. This seems to me to be the line that Mr. Russell takes. (ii) On the other hand you may hold that there is just one space, *viz.*, physical Space, which we learn about gradually by the intimate connexion of sight and touch. And you may hold that, although there is only one space and one sense of place, yet different sorts of objects may be in a place in different ways. A sensum and a physical object may both be in physical space but the meaning of saying that a sensum is in a certain place may be different from the meaning of saying that a physical object is in a certain place. This seems to me to be the line that Whitehead takes, if you

substitute space-time for space in my statements, as you undoubtedly ought to do. Russell's view seems to me to be a subtle form of the selective theory. A physical object just is all the *sensa* that anybody with any sort of body could apprehend from any position. Its appearance to a given person at a given moment is a certain member of this group of *sensa*. On the other hand a sensible space is a different selection of *sensa*, one from each of many groups that constitute physical objects. Each of the *sensa* is apparently held to be a particular substance which lasts for a short time. I find this theory extraordinarily difficult to grasp. It has only been worked out for the exceptionally favourable case of the visual appearances of objects seen by direct vision through a homogeneous medium. I do not understand how the effects of variations in the medium are to be stated on the theory, or how tactual *sensa* are to be worked in. Again the notion of *sensa* as substances each apparently springing out of nothing, lasting for a short time, and then ceasing to exist raises all sorts of difficulties. The theory seems to me to underrate the enormous importance of touch and movement in our notion of physical objects and their places. Lastly, I do not think that the term 'sensible spaces' is a happy one. If we are going to talk of visual and tactual spaces we ought presumably to talk also of visual and tactual bodies. We do not do this because the notion of body essentially means something neutral as between the various senses. In the same way it seems to me that there are no visual and tactual spaces; there just is physical space about which we learn through a combination of both these senses with sensations of movement.

Whitehead's theory might be called a subtle form of the Creative Theory. He does not use the word *sensum*, but talks of sense objects. Now an object for Whitehead is an universal, and a sense object is the lowest species of universal, *e.g.*, a particular shade of colour. The substantial side of the external world for Whitehead is space-time. What we call a *sensum* is a bit of space-time in which some sense-quality inheres. Now I said that the usual form of the Creative Theory suffers from the fact that it regards *sensa* as particulars that are in some sense created out of nothing by physical processes. Russell's theory, though predominantly of the Selective type, suffers from the same sort of defect. Whitehead's theory avoids this. To say that such and such a *sensum* begins to exist means for him simply that such and such a bit of space-time has such and such a sensible quality. Leaving out the time factor for simplicity, we can put it in

the form that such and such a volume of space acquires such and such a sensible quality, *e.g.*, a particular shade of redness, and afterwards perhaps loses it. The causation that he requires is not therefore the creation of a substance out of nothing but the familiar case of causing an already existing substance to acquire a fresh quality or to lose a former quality. Recognising only one sense of space and time he has to recognise different senses in which a quality inheres in a bit of space-time. When we say that the mirror-image is in a certain place behind the mirror we do not mean the same as when we say that a certain brick is also in this place. I understand his view to be that to say that a certain *sensum* is in a certain place is to assert a relation between this place, the sensible quality, the place where the observer is, and the places where certain other things such as mirrors and sources of light are. It is thus at least a four-term relation. It is of course very easy to think that a polyadic relation is only dyadic, especially when some of the terms, such as one's own position and the medium, are relatively constant and are taken for granted. If we were confined to quite normal visual *sensa* seen by direct vision through homogeneous media we might never find out this mistake, but we are forced to recognise the real complexity of the situation when we deal with unusual cases like mirror-images. When we say that a physical object is in a certain place I understand his view to be that we are asserting a two-term relation between a universal which is not a sensible quality and the place. Now very similar sensible qualities are in very much the same places with respect to many observers and many media. Such *sensa* are the normal visual appearances of some physical object, and the place where this object is is the place where these sensible qualities are. At any rate there is a rough approximation between the two, though when we take time as well as space into account there may be a considerable gap, as in the case of seeing a distant star. I suppose we should have to admit that on such a theory one and the same sensible quality might be in several different places at once with respect to the same observer and the same source. This, be it noted, is not the same as saying that the same *sensum* is in two places at once. I have taken a *sensum* all along to be a particular, *e.g.*, an elliptical brown patch. What can be in several places at once is simply that definite shade of brownness. Each bit of space in which it inheres becomes thereby a different brown *sensum*. This possibility seems to me to involve no difficulty, when thus explained, and to have some positive merits. It appears to fit very well the case

where I see a lot of mirror-images of the same object in different mirrors. Lastly we must note that Whitehead distinguishes between scientific objects, like atoms and electrons, and perceptual objects, like chairs and tables. In all cases, as I understand him, an object is an universal, and the substance that it inheres in is some bit of space-time. Scientific objects are, however, in all parts of space-time, whilst perceptual objects are in certain definite parts of it. But scientific objects are more especially present in certain places and times than anywhere else, and these special places and times are defined by the places and times in which certain perceptual objects inhere. What he is thinking of when he says that an electron is a quality that inheres throughout space-time is simply that it makes a difference everywhere and always. What he means when he says that it is more specially in one bit of space-time than anywhere else is that this influence reaches a maximum within a certain bit of S-T, and this contains some perceptual object such as a chair or a table.

I think that some such theory as Whitehead's forms a very promising basis for further advance. It will need a much more thorough discussion of the meanings of place, date, and inherence. And it will be necessary to modify our notions of causation very considerably. The concept of things and of causation are closely bound up with each other, as the example about the electron shows. The common view is that it is in one place but influences what happens in all others, whilst Whitehead's view is that it is everywhere where it would commonly be said to exert influence. The lines of advance that these recent speculations suggest is (i) to be much more ready to recognise multiple relations than we have formerly been. Many apparently insoluble contradictions vanish when you admit that a relation that has usually been thought to be dyadic is really polyadic. (ii) To clear up the notions of place and date, and not confine ourselves to shape and sensible quality in our discussion, as we have been too liable to do. And (iii) to recognise the intimate linkage between thing and cause. The boundaries of things have mainly been fixed for us by touch in the past, at a time when the transmissive side of nature was little recognised. We have tried to keep this sense of the limits of physical objects and to eke it out by the notion of transmission of effects through a medium. The question is whether this whole way of regarding things ought not now to be modified.

II.—SOME EXPLANATIONS.

BY S. ALEXANDER.

At the end of his article on my book, Mr. Broad invites me to clear up the difficulties which he has found in it, and with the permission of the Editor I respond to his invitation. Mr. Broad is a critic who, however keen and unsparing he may be, lays his mind alongside that of his author, and helps the author and himself and the reader at once; and if I did not feel grateful for such criticism and flattered by it and anxious to meet his wishes, I should be past hoping for. Of course I see the whole of my work together, and the reader reads it in pieces, and many things in detail may seem obscure to him which seem clearer to me. But I have no doubt that much in my book is difficult and obscure as well as questionable, and that in some places, especially where, as in the fundamental account of Space-Time, I have myself been groping in regions new to me, and fumbling for want of equipment with proper instruments, the obscurity is my own fault. However, at the risk of repeating myself, and even if I have to be a little desultory and gossipy and personal, I will do my best to explain, not every point which Mr. Broad has raised, but the major matters.

A.

The January portion of Mr. Broad's article dealt with my two initial chapters of Book I. about S-T. I begin by repeating that my account of the matter is metaphysics in the strictest sense and not mathematics or physics, and with a view to what follows I shall make some remarks about this difference. The science of metaphysics (for it is a science for me, and not directly a discussion of what is called 'life') differs from the other sciences in two ways. In the first place, it is rather descriptive than explanatory, whereas they are rather explanatory than descriptive. This affords one reason why system in metaphysics repels many people, for so much of the system looks like ticketing a great mass of ideas and arranging them in their places like specimens in a

museum. And yet there is endless satisfaction in seeing how all these things illustrate the one principle which has to be found before the arrangement can be made; and the only danger to the metaphysician is that he should be so enamoured of his principle as to misdescribe the ideas he is arranging.

Moreover, people are impatient of metaphysics because it seems to and does explain nothing. Like Margaret Fuller, it accepts the Universe. For instance, several persons have found fault with me because I do not explain why in the development of S-T, as I represent it, colours and life, etc., should 'emerge,' as Mr. Lloyd Morgan and I say. Well, that is not my business, and further I don't see how it can be anybody's business, except to note the facts and be grateful for them, or at least put up with them. Many are quite content to say it is God's doing. I should not use their language, because I think it unscientific, but I agree with the spirit of it.

This is, however, comparatively a less important difference. The main thing is that metaphysics is the most concrete of all the sciences. The statement sounds extravagant only because of the highly rarefied character of the subject matter of metaphysics. But abstract is not the same thing as abstractions. S-T and the categories are excessively abstract, as compared with life or mind or material existences; but they are overpoweringly actual. Now what I mean when I say that metaphysics is the most concrete of the sciences is, that in metaphysics no conception is employed for which it is not pointed out directly or indirectly what is the correspondent feature in actual experience. In all the other sciences, conceptions are freely used which are adopted without examination. The most obvious one is that of relation itself. It is the special business of metaphysics to examine these conceptions which are taken for granted in the other sciences and to find them in experience itself. It was a great advance towards concreteness when S and T were discovered to be, in Minkowski's phrase, shadows of S-T whatever S-T may be. But physics still speaks of number and order and things and the like; and that is the condition of its existence as an independent science.

Now these leaveings of the other sciences upon which metaphysics lives are the categories; and what I have tried to do is, assuming S-T to be the foundation of the universe, to point out one by one what the experienced features of S-T are which are the categories. Whether I have succeeded is another matter, but I have tried to get rid of every abstraction, to be utterly concrete, and to show that you may use

the categories legitimately of every existent because they are the experienced features of any bit of S-T, and therefore, if my hypothesis is sound, of any existent. Therefore, in metaphysics no neutral concepts from which to deduce reality, including S and T! For if I am right, then these so-called neutral concepts, relation, number and the rest, are themselves made of S-T and presuppose it, and they are not neutral but concrete like S-T. They are only neutral in the sense that they are neither matter nor mind. But in physics and mathematics and the other sciences, these concepts are rightly left unexamined, and that is why the sciences are less concrete than philosophy. The one thing which disappointed me in Mr. Broad's article was that he does not appear to realise that for me the doctrine of the categories, taken along with the notion of S-T, is central; and this failure of insight affects his criticism of me where he discusses my account of S-T. I am not reproaching Mr. Broad. Hardly one or two of my critics have seen the point. It is only that one expects more from Mr. Broad. And while I am in this mood I will get rid of such spleen as I have against some of my reviewers, whose reviews I have seen. Anger is not my master passion; but I have felt something approaching irritation when my first volume, which is fundamental, has been passed over with a word (not of course by Mr. Broad) and exclusive attention directed to the theory of knowledge, and even in some cases the whole doctrine is declared to depend on the theory of knowledge which I expressly declare to be derivative.

Now to the application of these rather general remarks. It will be convenient to take first the position that S and T are necessary to each other, so that each is an abstraction from S-T or Motion and not the reverse. I will come back to the question of perspectives later. That the world is a world of events was for the mathematicians an intuition; the philosopher arrives at the same result by his plodding method of consulting experience direct. Take Time. Its successive-ness is inconsistent with its duration. Yet in experience it is both successive and endures. How can that which intrinsically perishes from moment to moment also endure? Mr. Broad answers by asking another question: why cannot a duration be a whole of related but successive moments? (MIND, xxx., hereafter quoted as M., p. 35); or again, the instants related as successive may as a complex have the property of duration. (Imagine that I who am perpetually speaking in vol. ii. of emergents should forget that!) Now this illustrates my remarks about the categories. What is 'relation' in virtue of which duration is a whole of related

successive moments? What does relation stand for in our experience? I answer that it already implies S-T, and that until it receives its concrete interpretation it is in metaphysics a word. To say that duration is a whole of related but successive moments is only to say that moments in fact not only are successive but constitute a duration; and this is the very fact I start from. But it involves an apparent contradiction.

Mr. Bradley solves the contradiction by declaring S or T to be appearances of an absolute reality. But 'appearance' and 'absolute' as thus used are mere concepts, supposed to be legitimately inferred from fact but really postulated concepts. I answer, Go to the concrete experience; and there you find another continuum, S, which gives T something to hold on by; and the successive, perishing nows of T *can be related* into a duration because T is inextricably involved with S within the one Space-Time. What seems contradictory is not the empirical T, and the empirical T is not contradictory. For it is not mere T but is spatial, being the T side of S-T; and this S-T is not a mere concept but is the empirical reality, reduced to its simplest terms, in which we live. Further, though S and T by themselves are abstractions, they are real in so far as they are discoverable elements of the reality S-T; the abstractions are not mere inventions of the mind but well-founded.

Thus the plain concrete fact is that S and T are mutually involved: Time is as duration spatial, and Space is as divisible temporal. There is no circularity here: they do not merely wash each other's linen, as Mr. Broad quotes laughingly (I can't help thinking that by this time that linen has been washed so often that it can stand no more washing): each has a different job. I go on to show that it is not enough that there should be two continua, one primarily successive, and the other primarily extended, but that the many-one relatedness of points and instants (which is actually found) is needed. Mr. Broad detects a vicious circularity: but I can see none, and I think his propositions on page 36 are not accurate. I admit I have been careless in saying each instant has *its* point, and each point *its* instant (M. 34). But I do not say that successive instants are connected into a duration because each instant involves an enduring point, and that a point endures because it occurs at many instants. That would be circular. I say (1) that an instant could not be a part of a duration if there were no element with it which was non-successive; (2) but that this is not enough: in order that a point should endure it must occur at many instants, and in order that instants should be successive,

each must occupy many points. There is no vice here. The last proposition, that each point is in fact repeated throughout the whole of time, etc., is not really contradictory to propositions iii. and iv. The repetition I am dealing with is intrinsic repetition (see my I., p. 49). In the passage quoted from I. 81 the repetition is that of a point in a section. I shall refer to this later.

In my attempt to establish the connexion of the three dimensions of S with the characters of T, I have been very presumptuous, as I confess (A. I., 58—I shall refer to my book as A). But I will explain my purpose. S-T is, in the mathematical sense, of course 4-dimensional: events vary in four orders. I may have given a different impression, but I did not mean to impugn that at all—to say that the world is a 3-dimensional one. What I feared was that the mathematical statement is taken to mean that the time-dimension is added on merely to the three spatial ones, and I have tried to show that it is not independent of them, nor they of it. In other words, I wanted to deepen our sense of the obligations of S and T to one another, that each was a part of the other's being. It is probable enough that I have not succeeded. A very competent correspondent told me (the remark was not intended for publication and I have not asked his leave to publish it) that he would give his boots for the proposition to be true, but that he did not think I had proved it. I feel it in my bones that the proposition is true. If I have not succeeded in the proof some one else may; and I am not afraid to be wrong in a good cause.

Mr. Broad thinks I have failed, and in our long and amicable correspondence in the matter I failed to move him or he me. He fails to move me still in what he gives on M., 37 ff. He has certainly pointed out some incorrectness in my statement, which may however readily be mended. (a) It would be quite enough to say (M., 37) let there be two instants t_1, t_2 at two different points. (b) My 'either . . . or' certainly means 'both . . . and'. The real difficulties are those urged on page 38, though as Mr. Broad himself says I have tried to anticipate them in the footnote (A. I., 53). Why should there not be many motions in the same line, starting at different moments, or going in different directions? Now I still think that these questions assume that our line is drawn in a 3-dimensional space and that we are looking on from the outside. We are not thinking ourselves into the 1-dimensional space of which we are speaking. Moreover, they assume, I believe, an absolute space and an absolute time in this world. But in fact, as I see now, the difficulties raised

are really irrelevant. For it is enough to speak of any one motion in a line. Granting that T in any perspective is irreversible in direction, the S of that perspective of S-T could not be 1-dimensional, and that is enough for my purpose. (I think that the notion of a perspective where the S is 1-dimensional is probably impossible; but of perspectives more presently.)

I do not speak of the further and still more complicated later arguments, beyond saying that I am sure I ought to have been able to state them more easily. But I do not believe that the apparent plausibility of the arguments arises, as a writer in the *Oxford Magazine* with the not-unidentifiable initials H.B.W.J. says, merely from the representation of T spatially which I have adopted. On the contrary, it seems to me the only way of representing the T, seeing that S is only 3-dimensional. You could of course dispense with representation altogether, but the periphrases would be intolerable. The truth is that it is the attempt to represent a 4-dimensional world where the T dimension is as it were homogeneous with the three spatial ones which presents the really formidable difficulty, as any one can satisfy himself who refers to the humorous treatment of this difficulty by Mr. Eddington (*S, T, and G*, p. 49).

I come now to the general account of S-T which Mr. Broad discusses first. I seem to have given him a great deal of trouble, but at any rate he has given a perfectly clear and faithful statement (*M.*, 29-30) of my meaning. I know that to speak of pure S-T is puzzling; and it is of course a theory to suppose, as I do, that material and all qualified events are as it were nodosities in S-T. I should not have many philosophers with me in the idea of a pure unqualified S-T actually existent before objects. Only perhaps I may invoke Spinoza to stand beside me and the pale ghost of Timæus of Locris. Still at any rate we may consider the purely spatio-temporal characters of things by themselves. And next I ask the reader to consider the question in its connexion with our apprehension of S and T which I call intuition. I have always been troubled by the question of how to co-ordinate the so-called independent spaces of touch and sight, and I do not see how it can be done. On the other hand, it is easy to see how touches and colours can be co-ordinated within an extension. As I so often put it, when we see a patch of colour, we see not a colour with extension but an extension with a colour. A pure S-T enables us to understand. It is for me an æther of pure motions, chaotic at first, and without differences of quality (the one quality is that of being

motion),¹ but of intensity and direction; within which groups of motions are generated which bear what we ordinarily call quality: red; or life, which I take to be a quality of living motions, not merely the motions themselves, as Mr. Broad thinks it is (M., 145).

In the next place there is the analysis of S-T into point-instants or pure events which I describe as the limits of motions and as involving a concept. I want to explain myself and lay myself bare upon this matter because I want to get more light upon it for myself. A point-instant or pure event or event-particle (I somewhat dislike this phrase because it suggests materiality, or at least quality) is conceptual in the sense that it is not reached without the use of concepts, but for me at least it is a real constituent or element of S-T. Each point-instant is a real individual though we can never hold it. The line is composed of such, though the point-instant never is one of the terms of the route by which we approximate to it. Thus it is not artificial like a section (I return to this presently) but is actually there. The limit is actual. There is an old question which I like to hear asked in the rolling French? *L'infini actuel est-il contradictoire?* I with many another answer no. It is never completed, else how could it be infinite. Still less can we by our thinking arrive at the end. But actual it is. Now there is in principle no greater difficulty in holding the actual reality however conceptual of the point-instant, an infinite of division or inclusion though not an infinitesimal. The all-comprehended is no less actual than the all-comprehending.

Here enters once more the difference I began with speaking of between the philosopher and the physicist or mathematician. For me the important thing is that there are elements of S-T; I might define point-instants so. When I attempt to call it the limit of a motion, I am really fumbling with mathematical notions, leaving my last like an undutiful cobbler. I know that the position is difficult and perhaps it may be thought to be wanting in concreteness. But I say no, for the ideal is perfectly concrete, and you cannot dispense with real elements of S-T. At any rate this is what I have intended, seeing these difficult matters darkly through the foggy and fuliginous air of this dear Manchester.

The reason why I say all this is that Mr. Broad says that I should have made my account of S-T and its elements very much clearer if I could have used Mr. Whitehead's

¹ Mr. Broad's phrase (M., 31, line 3) 'a quality corresponding to the swiftness of the motion' is a slip. The correspondent to that is intensity.

method of extensive abstraction (which, of course, I had seen the sketch of in his *Organisation of Knowledge*). Now I do not propose to discuss Mr. Whitehead, partly because I am incompetent. I prefer to rejoice when I find myself in community with him, as for instance in our common devotion to the concrete. But though it is precious hard to distinguish Mr. Whitehead's physics from philosophy, it is still physics. It is all important for him to define his elements exactly, as he does by the method, which turns on the use of concrete durations. But at any rate he recognises that there are elements, and I doubt whether but for the previous intuition of the reality of such elements, he could have been set upon the proper method of defining them, so as to get concepts that can exactly represent them. The process is an *ex post facto* conceptual construction to replace the vaguely apprehended elements, but the elements are there before our eyes, in the same sense that the red corpuscles are there before us in the blood though we do not distinguish them. If you want to get some measure of the significance of Mr. Whitehead's account of the event-particle in terms of concrete durations, you must contrast it with Euclid's purely conceptual definition of a point as that which has no parts and no magnitude.

- ✓ There is only one further remark which I will venture to make at present about Mr. Whitehead's 'method' and again because it seems to illustrate the difference I have been speaking of. Quite legitimately as a physicist he uses the conception of the 'relation' between events, without examining what relation stands for. But as a metaphysician, this relation seems to me homogeneous with its terms, when you translate it thoroughly into the concrete; and then the question arises whether you ought still to speak of S and T as being relational in the first instance and not rather as I say stuff within which relations are discriminated. This is the puzzle which besets me in reading all the recent physical work on S and T. It does not affect the truth of the work for the reason I have so often named. But according to convenience the writers speak, or appear to do so, sometimes as if S and T were systems of relations and sometimes as if they were metaphysical 'stuff'.

It is this system of S-T which I have tried to describe the look of in my account of perspectives and sections which Mr. Broad finds so much open to question and quite rightly thinks difficult and even obscure. My one object was to bring out the fact that to separate S and T is artificial, though under provisos justifiable; that S-T is a system of

events; and for this it is no matter whether events are conceived as by Mr. Whitehead as durations, or the word is used as by me for event-particles. The conception was not familiar to philosophers, and I found my task very difficult. One point I was conscious that I had left obscure and fumbled over, and that was the notion of points intrinsically simultaneous. Mr. Broad has misunderstood me. He takes me to mean (M., 31), that two flashes of light and a sound starting at the same moment would be intrinsically contemporary, though not necessarily so in a perspective. That would be assuming an absolute date for the events whereas all that I apprehend are dates as in my perspective. There comes in the conception of relativity. 'Intrinsically contemporary' points are for me the points (even in a perspective) which are occupied by one instant and give as I say (A. I., 50) an instant its structure, and are needed to make it an instant. It is in the total S-T that an instant has every point for its occupation, but that notion is the artificial one of a section of S-T through that instant.

The main position is that if you are to take glimpses of the real world of S-T (and you may add its qualities or 'objects' (Whitehead), for to the end it remains a world of events); if you wish to do this and see the world as a history, which it essentially is, you must take it by perspectives which give you historical reality and not by sections which are but useful artifices. The distinction is really quite simple. Take a finite thing, a cube say, and slice it into sections. You can reconstruct the cube from the slices, but you have to do it yourself. The slices do not add themselves together. But go round the cube and take its perspectives. You never get a slice; you take in the whole contour of the cube as far as you can see it; and (this is the point) the perspectives overlap; one cries out for the next to complete it; they fit together by themselves; and this is what happens when we see not the single perspective but the thing of which we have the perspectives, which I have therefore described as the system of its perspectives unified within a certain volume of S-T which is its 'substance' (A. II., chaps. iv. and vii.). Of course, perspectives of a finite differ from those of the infinite S-T, for the point of view there is included in the perspective and further our visual perspectives need eyes. But the great point is that perspectives are historical realities and sections are not. And as I have said before, the event-particle is historically real and the section is not, it is purely conceptual, the other is merely *arrived at* in part by conception.

Mr. Broad gives (M., 31) a perfectly correct statement of what I mean by a perspective from an instant, except for the slips I have mentioned; but when he comes (32) to speak of perspectives from a point, he gives a notation which at first puzzled me and leads on to an important matter. He says, "the 'temporal perspective' from e_{st} includes event-particles of the form $e_{st'}$, but none of the form $e_{s't}$, etc." Now alike in temporal and spatial perspectives the whole of S and T is given, though not all point-instants. I suppose, therefore, that by s' Mr. Broad means a different space from s , what he calls "the space of a perspective" (34). But he mistakes me here. The difference of one perspective from another is that points occur in the one with different instants from the other. But each contains all S and all T. Whereas total S-T contains not only all S and all T, but all point-instants. In the one case, S-T as a whole, you have every point with every time, while in a perspective you have every point with some definite instant or instants, or every instant with some definite point or points. But the framework of S and T is present in each perspective. That is the difference between a perspective of the cube taken from the eye by vision, and the perspectives of S-T taken from point-instants by intuition. We see only the illuminated part of the cube; but the point-instant 'sees' the whole of S-T and selects its perspective of point-instants. To put the same position otherwise; a section of S-T from an instant gives you instantaneous S, but though the date of every such section is different the total S is the same. With this explanation Mr. Broad will see that there is no contradiction between the two statements he quotes from me (M., 33, 34). I know quite well that Minkowski and others would say there are infinite spaces which are sections of S-T. But this I think arises from taking T strictly as an additional dimension to the three of S—a matter I have discussed already. For me there is only one S and one T, but according to the position of the observer the instants will in the different perspectives be differently, and of course only partially, distributed over the points. That is why I speak of total Space or Time; each is only one and the same in all the perspectives and in all the sections.¹ Again I think it important to make this quite clear for the better passing of judgment on my attempt at describing S-T. Moreover, it raises pretty plainly the question of the proper way to interpret relativity for philosophy.

¹ But observe that it is not as common to all the sections that I call total S or T real, but as common to all the perspectives.

I am not proposing to discuss that topic here, though I hope to do so at some other opportunity. Relativity has been interpreted in many ways, in the direction of pluralism, monism, idealism and realism, and the different combinations of these. Which is the correct one it would not be easy to say.

Finally, Mr. Broad questions (M., 32) whether it is legitimate to speak of perspectives at the level of pure S-T at all. Certainly, the word is metaphorical, though the metaphor is well grounded, because (for me) the point instant is a sort of body-mind, as explained in A. II., ch. ii. Mr. Broad thinks the notion is out of place unless the motions are not pure but qualified, light, I suppose, or sound. He forgets my notion of the 'intuition' which point-instants possess. Even if all motions had the same velocity their intuition would give them the perspective described. But of course I am in fact supposing that S-T consists of motions of all velocities (which, observe, are their intensity, not their quality. For this I refer to A. I., ch. vii). How then, it is asked, can there be several motions intersecting at an event-particle, as the perspective notion supposes? Is not that to imagine an event-particle, which is the limit of a motion, having several velocities at once? But is not Mr. Broad in finding this difficulty taking the event-particle to be not a limit but an infinitesimal, a very small duration? Velocity can arise only out of the transition between one event-particle and another—I must not say, the next. (See again the analysis of intensity.) That being so there is no more reason why motions should not intersect in the same event-particle, than why lines of different direction should not intersect in a point. I hope this statement will commend itself to Mr. Broad, even if he still finds my account of S-T after all this commentary and these admissions a failure.

B.

I had to be somewhat long upon S-T because that is fundamental in its general outlines to my book. Upon Mr. Broad's second article I can, I hope, be a little shorter. And first the doctrine of enjoyment and contemplation, which is my contribution to the absorbing question of what the mind is, and its relation to things. It is a doctrine about which I am beset with doubts, as will be plain to whoever reads A. II., 109 ff., where I speak of the doctrine of my friends the realists overseas, Mr. Holt, Mr. Perry and others. It may be I am wrong and they are right, that behaviourism in psychology and in the theory of knowledge

may be victorious. To me, the issue is that, and there is hardly a day that I do not think about it. If I live to be convinced that I am wrong I trust I shall not be afraid nor ashamed to say so. To die as a behaviourist would be, I think, quite an honourable end. Meantime, till that hateful day arrives, I pursue the policy of making a clean breast of my thought, in order that Mr. Broad and others may have the materials for a better judgment.

Mr. Broad "sums up his difficulties about enjoyment in one question: Is enjoyment by a mind a mode of knowledge or only a mode of being?" I sum up my answer by saying: it is undoubtedly a mode of being, but not *only* a mode of being, for it is that kind of being which is a knowing, and is at once a knowing of objects (in virtue of which relation it is called contemplation), and of itself. It is first a mode of being. Assuredly. My whole enterprise is a study in ontology, and have I not said more than once that the theory of knowledge is not prior to metaphysics but an incidental chapter of it? (That is why I have felt the irritation I spoke of before at certain reviewers.) I should have done better to keep throughout the words the enjoyed and the contemplated (see A. I., 13), but it would have been very inelegant. These two modes of being are at any rate the two concerned in the cognitive relation, which is their spatio-temporal compresence. Mr. Broad does not, of course, make the mistake of supposing that the act of contemplation and the enjoyment are separate existences, and so I need not linger over that.

But secondly, enjoyment is not a mere mode of being, its very essence is to be a knowing, a knowing *of* its object, and an awareness of itself, where the last of means consisting in. Mr. Broad proposes to me to say that besides enjoyment and contemplation, there is knowledge by enjoyment and knowledge by contemplation (M., 135). But I see no advantage in it. I readily admit that knowing is a word applied in the first instance to contemplation. I do not know myself in the same way as I know my object. That is in fact the point of the distinction. But knowledge by enjoyment is the same thing as the enjoyment over again. I will put the matter thus. Distinguish knowledge from knowing. Knowledge then means existences. Some of these existences are physical or other 'natural' objects. Some are acts of knowing. That knowing is a knowing of objects and is knowing of itself in the only way in which the knowing can be known. Directly you speak of knowing by enjoyment, you have to add the proviso that this is not knowing *of* the enjoyment. Otherwise you would have the mind looking on at itself, which if

the notion of enjoyment is valid, it cannot do, or at any rate does not do. On the other hand, knowledge arrived at by enjoyment and by contemplation is the original distinction of the enjoyed and contemplated over again.

Perhaps I can make things clearer and shorten my reply to Mr. Broad if I am allowed to drop a moment into gossip, assuredly not because I think my mental history interesting. I arrived at the notion of enjoyment in the first instance by thinking, like better men, about causality. Asking how a thing could be the cause of the mental state which apprehended it, and observing that we were unaware of the neural effect which it actually produced, I concluded that the presentation of the object was not as it were a mental picture produced by the thing in my mind, but was the thing itself or a selection from it, and that the mental process was an 'act' of mind which I lived through (see A. II., 157). It was then I understood the position of Mr. Moore's article in refutation of idealism. In endeavouring to make clear to myself what the nature of this enjoyment was which we lived through when the object was revealed to us, I came more and more to think of it on the analogy of the animal's or plant's selective reaction to stimuli. Accordingly, mental acts were in the line of organic reactions, only not merely vital but so developed as to allow the emergence of mind. Quite late I thought I could thus understand how our purely vital processes could be objects to us, as they are revealed to us in organic and kinæsthetic sensations, which certainly seem as much objects as colour. This recognition is one of the motives which keep me from a behaviourist metaphysics—only one, but I had better not raise this large issue here but reserve it for some later opportunity. But I had already asked myself whether the enjoyment, being like any reaction specific to its stimulus, could not be described completely in the likeness of vital reactions. Consciousness is admitted to be temporal; and I completed my view when I could see that mentality occurred along certain spatial lines. Being mentality it enjoyed itself and its own motion, and this is what I mean by saying that we are aware of or enjoy ourselves as direction, that is in enjoyed space-time. Of course, if you will try to find a direction of mental process which you can contemplate, you find none and the problem is queered from the outset.

Finally, partly by my own reflection and partly by the hints of others, I came to see how very much I had been repeating with a difference the doctrine of Spinoza. So far as S-T is concerned I have tried to explain this in a paper on

'Spinoza and Time' now published.¹ But it may clear up the theory of knowing if I point out that enjoyment appears to me to be contained in Spinoza's proposition that the mind is the idea of the body, and in that other great saying that the idea which Paul has of Peter indicates rather the constitution of Paul's body than the nature of Peter (*Eth.* ii., 17, Sch.). In other words, that the idea of Peter which Paul has is a mental condition of which the other aspect is a bodily condition of Paul, and that it is different according as it is the idea corresponding to Peter or to James. In fact, enjoyment and contemplation replace Spinoza's ambiguous use of the genitive in the phrases 'idea corporis' and 'idea Petri'. Where I still dare to differ from Spinoza is that for him there is an idea of the mind, which is united to it as the mind to the body and an idea of that idea and so on. I should say the mind is an idea and that an idea of it is merely repetition. I can only think of an idea of an idea in so far as an idea (of an external thing) is included in a larger whole of ideas which is the mind.

With these remarks I can reply to some of Mr. Broad's difficulties. He himself (M., 130) clears up the apparent absurdity of the statement that the mind enjoys its own space and time; it means simply that the mind is spatio-temporal. But the word enjoy is not "used ambiguously" (131), and it does imply knowledge, such knowledge as is suitable to enjoyment. I need not labour this further. In the same way, when I say that in contemplating a horse I do not contemplate but enjoy the togetherness (M., 130), I mean only that the togetherness of the horse with me is experienced as a character of my enjoyment. The horse would experience it as a character of his enjoyment. In other words, the togetherness is not contemplated by me (nor by the horse). Now surely this is only description of the fact. When I see the horse what I see is the horse; that is the whole object. But the togetherness is there, and is experienced by me as attached to the enjoyment, not to the contemplated.

√ Then there is the important matter discussed in M., 131-3. Mr. Broad raises the alternative that the mind may contemplate its own acts and be 'beside' them as the act is 'beside' the tree, and he complains that I have not proved that it is not so. Well, it is a question of fact and not of proof. Philosophy proceeds by description; it only uses argument

¹ I add here that the categories, as I describe them, correspond to Spinoza's *communes notiones*. Also, I take the opportunity of correcting a mistake in the little book. Page 52, last line, read: 'he does not mean that in the usual sense of the word I perceive, etc'.

in order to help you to see the facts, just as a botanist uses a microscope. Mr. Broad has a passion for argument, naturally enough as he does it so well, but I dislike it, even in Mr. Broad. The passage he quotes from A. I., 19, is not an argument, but a mere restatement of what was said before. The fact is (as I see it), that when I am describing or watching a mental act, that act is enjoyed along with the other enjoyments then existent, say the act of description, but it is enjoyed as part of the whole mind and not as something distinct from the mind. I recall the 'great saying' I quoted from Spinoza about Paul's idea of Peter. I may be wrong in the way I see the fact;¹ but if they inscribe on my cinerary urn in the crematorium, Erravit cum Spinoza, I am well content. Remember, too, that you have the same internal complexity in the contemplated; as when the larger fact of the peace includes the smaller fact of the break-up of Austria.

In what he writes of introspection (M., 132), Mr. Broad has a little misunderstood. When I contrasted dissected mental acts with blurred ones, I was not raising the point that Mr. Stout discusses early in his *An. Psych.*, about whether you can analyse mental states. I had been saying that whenever I express my mental condition, when I merely say I feel cold, or say ugh!, I am really practising introspection. But the name is commonly used only when I am describing a dissected state, and what I wanted to say was that psychological introspection only means describing that state, when it is done for scientific and not for morbid, practical purposes. And I was contending that you describe the mental act using the object of it as an indirect means, and that the object itself is not introspected, no, not even if you are observing an image. Of course you may say if you choose that images and sensations are introspected, but then you must say that physics is an introspective science.

In dealing with my complex treatment of memory and mental space-time Mr. Broad has been perfectly clear and faithful. The mental condition at any moment with its memories and expectations is as Mr. Broad says for me a perspective of the mind with its space-time. In fact it was through the mental perspectives as I describe them that I came to the physical perspectives as I describe them. Here is another self-revelation which may damn me! But I have nothing to add; apart from the points already raised. The sole question is whether the 'present self' is merely an

¹ And in my interpretation of Spinoza. Perhaps I may provoke someone to discuss the matter.

artificial selection, or "a natural unit" (M., 136); and that is a question of description.

As to the easier conception of contemplation (that is the contemplated) two difficulties are raised, one of which I can easily remove. It occurs on M., 137. Something is behind my back which I do not see. It is for me not compresent with any sight of it, for there is no seeing evoked by it. But since everything is in some way compresent with everything, the object behind my back affects my brain though it does not make me think. Mr. Broad urges that then a set of motions possessing the qualities q_n, q_{n-1} , etc., may be modified without modifying q_n . But I should say the brain when it does not actually think possesses only q_{n-1} , etc., movements. The precise motions needed for q_n have not been set agoing. We say the brain has the quality of thought because the appropriate movements arise on occasion sufficient. But in the interval the only motions are of the lower order (see the account of permanent secondary qualities, A. II., 60). The brain is then unconscious.

The other and harder matter is the doctrine that when I imagine there is before me an appropriate object in the external world. This perplexes Mr. Broad, though it seems to me quite simple. I assume for the moment that the image is an exact reproduction, say in memory, which of course it never is in fact. When the object is there actually present to the senses it acts on me causally and produces in me a certain mental reaction. If for some reason the same mental movement recurs I have the external object before me, and if it is a remembered object, the real object which I remember. Mr. Broad asks why this must be so, and he sets out (M., 140) the premises which are implied in the notion that it is so. If I were in the habit of arguing I should say I had argued from these premises, for the statement of which I am grateful to Mr. Broad. As a matter of fact, what I do is to interpret images in the light of what I learn from perception, as Mr. Gregory sees in his very interesting article in the July number on 'Realism and Imagination'. It is no matter how the mental act arises, whether by causal action of the object or from a determination of blood in the brain. Given the appropriate mental act, there is the object. Mr. Broad's illustration of the keys and the locks, which he uses against me, really helps me. A key may exist without a lock to open; but if there is no lock to open, the key is a piece of iron of a certain shape but it is not a *key*. To be a key it must be a key *to* a lock; it must be for use. Now the mental act is a key not only for use, but in use: it has an

object. You may have a dog without a mind to see it, but you cannot have the sight of a dog without the dog. As a bare matter of fact, there is the knowing of a dog in imaging it. If I have interpreted the perception of the dog aright, then the consequence for imaging follows at once. (Of course, if the American realists are right, there is no imaging distinct from the image, but the image still has the same status as the percept. This is, however, part of the big issue of which I am at present keeping clear.)

I am accustomed to compare this apprehension of a real object when it is not present to the senses to turning round in order to see it. When the stimulus from the blood sets my enjoyment into the dog attitude, that is like turning me round to see a dog that is really present. I also illustrate from the preparation of an animal for its prey. I think Mr. Broad's unwillingness to accept this illustration (M., 140) comes merely from not distinguishing general objects suitable to general attitudes and specified objects with a specified attitude. The cat may treat a moving bit of dead leaf like a mouse, but that is because he uses towards the leaf only the general scheme of 'a thing to catch'; in other words he is playing. When we think of 'something or other' we are in the most diagrammatic attitude possible, but it is appropriate to the diagrammatic object.

One word in conclusion as to the relation of compresence to appropriateness. That last name is a description rather of the terms in the relation than of the relation itself. Still, as a relation it is the form which compresence assumes in all organic responses. When the one term is a mental act you have the relation of knowing. Now I think we could take this appropriateness-relation and extend it downwards and then we should see that the causal relation is really a kind of 'appropriateness'. As we go down lower and lower in the scale, the selectiveness diminishes, though it remains, until in the end appropriateness sinks into nothing more than bare joint existence of the related things within the continuum of S-T. Point-instants respond appropriately to point-instants, but there is so little *to* them that the whole of them practically is involved in the compresence. (This remark refers to Mr. Broad's doubts on p. 140.)

So far I have been supposing images to be faithful. When we come to illusory images we have to introduce the idea that the mind imputes characters to its objects, which indeed it does in ordinary perception. The principle is simple enough, as Mr. Broad sees (M., 143). Let large letters stand for an object and small ones for the appropriate mental

attitude. Then if an object *AB* is present and excites the *ab*, and if for some reason, complication, association, mere accidental internal excitement, etc., I am in the attitude *abc*, *c* being in close connexion with *ab*, then instead of apprehending *AB*, I apprehend *ABC*. This is a mere consequence of the general principle that attitude implies the appropriate object. Illusory appearance results from the substitution for the ideal supplement to a present object of another. I say then that the illusory object is one all whose materials and the mode of their combination are found in the real world, and that the unreality of the whole comes about from the interference of the mind, which itself is one of the realities of the world.¹

Mr. Broad, however, does find a difficulty in the application of this doctrine to illusory sensations, and I will try to remove it. I take the grey patch which I see green on a red ground. I intuit the contour and extent of the patch, and this supplies me with the element of singularity in the sensum, for S-T individuates. Owing to the field of red, the part of the retina corresponding to the grey patch responds in the way appropriate to green. The green which I thus see is real green somewhere in the world, say in the grass. Such greenness occurs in the real world in a determinate contour—that is the way universals are found. Accordingly the actual intuited contour is seen green. The actual grey of the patch does not affect the eye as grey, and its place is taken by the green 'transferred' from elsewhere. The intuited contour takes the place of the nose in the familiar illusion of feeling the nose double; greenness takes the place of doubleness in that experiment. The only difference is that the doubleness is felt and the greenness seen. Mr. Broad would, I imagine, find no difficulty if the green were supplied in idea. But the conditions are such that the attitude induced in the eye is sensory in this case and not merely idea. The patch of grey does not of course become green, but I see it so. Squinting is the best analogy I can find, because in squinting in the classical experiment I quote (A. II., 215), the two pots are seen to overlap.

¹ Imputation in this sense is something quite different from apprehending truth and goodness and beauty, though 'all apprehension of beauty involves imputation to the object. I do not raise here the question of tertiary qualities, which Mr. Dawes Hicks, who agrees with me in the main in the view to be taken of knowing, raises in his criticism in the April *Hibbert*. I wish I were able to deal in full with this valuable criticism (with a very skilful summary of the book) and with Mr. Gregory's article before mentioned. But I find Mr. Broad a sufficient handful for one occasion.

As to my difference with Mr. Stout (M., 141) that blue spectacles are not on the same footing as the lens of the eye, I remain unconvinced and obstinate. Of course the blue spectacles might be a part of my organ of vision. In that case, except for adaptation, I should see things blue, and see them wrong. Nature has secured for us approximately achromatic eyes in order that we may not make this mistake. With imperfect eyes we do make such mistakes, which thus are illusions of sense. However, the question is not whether we can consider the spectacles a part of our eyes, but whether they are so. Mr. Broad says we can by appropriate means see our eyes as much as the spectacles. But can we by any contrivance see our lenses, as engaged in the act of seeing? This fact that we do not see our eyes, while we do touch our hands, has a bearing on the theory of space-perception (A. II., 170).

With regard to the very interesting remainder of Mr. Broad's article, I must be brief. As to C, "the hierarchy of qualities," I do not think I can add anything new, and I should have to repeat myself inordinately. I can only suggest two things: (i) that in place of 'must' and 'could not' we should read 'do' and 'do not'. It is all a question of fact and description, and of whether the facts as described fit in with the theory as a whole; (ii) that in settling whether life has a status like that of red or only means certain ways of moving or other changes and nothing else, we cannot put aside the evidence of the organic and kinæsthetic sensations. I think that in them you catch life as a quality. (Anyhow I am disposed to think that these sensations are destined to play a larger part in metaphysics than hitherto, whether my reading of them is right or wrong.) But the whole of Mr. Broad's section C has to be considered carefully. And I must take his remarks on Universals also (section D) *ad avizandum*. I attach great importance to that topic, but am not prepared at present with anything further.

In section E upon deity, Mr. Broad expresses some doubt whether I mean my 'theology' to be taken seriously, and seems inclined to regard my fourth Book (as someone said, perhaps it was Mr. Broad himself), as the comedy completing the three previous tragic Books. I can assure him that I am very serious. These three pages are full of Mr. Broad's fun. But the topic is a dangerous one. As Bailie Nicol Jarvie said when he and his companion were passing the hill of the fairies: "there's nae gude in speaking ill o' the laird within his ain bounds". I have only a few corrections to make.

(i) Mr. Broad deserts his scientific sobriety for a moment to 'parody' my 'theology' (M., 28): "God never is, but always to exist, and There is no God, but gods". This is not quite exact. What I say is that God as actually possessing deity does not exist but is an ideal, is always becoming; but God as the whole Universe tending towards deity does exist. The same inexactness is repeated (p. 148). Deity is a quality and God a being. Actual God is the forecast and as it were divining of ideal God. I know these things are hard to make quite plain, and I daresay I have not succeeded. (ii) Mr. Broad's suggestion of actual gods I have myself mentioned. I identify them with 'angels' (A. II., 346, 365). But they would make no difference to the doctrine for we do not know them. (iii) A much more important point: I do not say as Mr. Broad thinks that we "ought" to regard the new qualities produced by S-T with religious reverence; but that religious reverence is the way we do regard such a next higher quality—no ought but a fact, if rightly described.

But I make no further remarks upon this matter, because Mr. Broad is not here asking for explanation but making legitimate criticism. I only observe that I have added something to the subject in the little piece on Spinoza mentioned before in the light of some questions raised at a meeting of the Aristotelian Society and kindly reported to me.

I have done my best to supply explanations, but I fear I may have sometimes appeared to be repeating what I had said already. I hope it may help a little towards forming a judgment on my work. At any rate, it has done me good to try to do what Mr. Broad has done me the honour of asking me to do. This is an open letter to Mr. Broad, and the pleasure of writing a letter depends on the person to whom it is addressed, and I have liked writing to Mr. Broad.

III.—LITERARY TRUTH AND REALISM, THE ÆSTHETIC FUNCTION OF LITERATURE AND ITS RELATION TO PHILOSOPHY (II).

BY P. LEON.

IN the first part, we dealt with the more or less naïve testing of an æsthetic product, literature, by the standard of reality and with the covert ethical demands made on it. But the question as to the relation to reality of the æsthetic qualities or the æsthetic attitude may be put more philosophically. Granting that the æsthetic act is not itself an act of attribution, we may yet ask: As these æsthetic qualities are qualities of something, what are they qualities of? What is the metaphysician to say of their reality? Is there an objective or absolute æsthetic aspect or order of anything? Has the universe as a whole an æsthetic aspect or order?

The æsthetic qualities are qualities of the real. There is no creation out of nothing, and the poet gets at least his suggestion from everyday reality. But these qualities are reached by abstraction and elaboration, and their relation to reality is like that of ideals, or of "limiting cases," or mathematical characters; so that it would be as unreasonable to look for a case of pure tragedy, for example, in any concrete portion of the real, as it would be to want to handle a surface apart from a solid or a point without magnitude. Æsthetic aspects or orders are objective, firstly, because they are inherent in a reality in which intelligence is present, and, secondly, because any concrete portion of reality may, in part at any rate, be capable of some æsthetic aspect or enter as an element in one; but they are none of them absolute, in that any real can exhibit different æsthetic aspects according to the particular abstraction and selection, and none without abstraction and selection; in other words, an æsthetic unity will not always coincide in extent with what we treat as a whole for any other purpose. The universe as a whole has in it all these æsthetic aspects, but whether it itself is susceptible of one aspect embracing and subsuming all these is a difficult and perhaps not a possible question. At any

rate philosophy must first show us that the universe is not merely additive or a miscellany, must give us a category subsuming all the others, and must decide on the relation between the good and evil in the universe.

With the latter problem especially, the question of the æsthetic aspect of the universe always keeps in close touch. But the æsthetic requirements are different from any others and far more easily appeased. Hence when philosophy does present us with a view of the universe which makes at all an æsthetic appeal, we get more satisfaction than philosophy usually can give us. Such would seem to be the satisfaction derivable from most so-called explanations of the problem of evil. As ethical beings, we are committed to a truceless war with evil, and to be told that evil is necessary for the good, which gains a quality and strength from its very struggle, and that because of its evil this is the best of all possible worlds, so that we could not wish it otherwise, is only to be puzzled and mortified. Either the ethical attitude is ultimately meaningless, or we must want to eliminate all evil. At any rate no explanation is easily acceptable. But if we regard the universe as a drama, then the struggle is essential and we should certainly not want it other than it is. Nor need evil be proved a subordinate antagonist. The tragedy is a splendid one, if evil is triumphant. Good may even be shown to exist merely that evil may climb on its shoulders, and the universe may be explained as a bitter joke or irresponsible prank. We should be equally happy, at any rate, if our commerce with the universe could be reduced to æsthetic contemplation and utterance. Such an impossible supposition is fairly useless, but does throw some light on the relation between our æsthetic, theoretic, and ethical demands which *prima facie* are far from being one and the same. That "truth is beauty and beauty is truth" we do not know. It is a saying very hard to digest.

To resume: the purport of the argument has been in the main negative; we have tried to show what literature is not. Because it embraces, enlists, and appeals to the whole of experience, is, as it were, an essence distilled from it, it is particularly difficult from an analysis of our enjoyment of it to avoid identifying the æsthetic act with any and with every form of experience; with sensation, feeling, and emotion, and above all with ethical and theoretic interests; the view of the function of literature as that of predication or attribution will in some form or other always creep in. Positively, we have tried to name the æsthetic function as seen working in literature, as the creation and appreciation

of certain contrasts or developments through moments. This is meant to apply to complete literary works. Such a work is the drama, and Aristotle's account of it is in the main not misleading. This at least applies to his technical and formal analysis: the positing of the organic unity of the work, the emphasis on the importance of the *μῦθος*, and the account of the moments of the movement: the tying and unravelling, the turn, the catastrophe. Such an account, we believe, may be applied to less complex works, even to the briefest epigram and the commonest joke or funny story. Tragedy consists in the development of one contrast, comedy in that of another. Bergson is right in saying that laughter depends upon the apprehension of some contrast, though he fails in his attempt to specify it.

The lower limits of literary creation are difficult to fix, and it is therefore hard to show to what extent an account, meant for a pure case, applies to imperfect ones. What shall we say of bare effusions of feelings, of sketches, of stories without a point, of novels without plot, situation, or central idea, but packed with reflections, interesting experiences, psychological analysis, etc.? Where is the contrast and development? We must say that as wholes these works are not artistic though they may be made up of artistic parts. They appeal to our theoretic and practical interest, and as every one of us can say "*nihil humani a me alienum puto*," there is little in human affairs that will not hold our attention. But the human interest is not, as such, æsthetic. If that means condemning a large part of literature, and particularly the novel as handled by most men, we must protest that at least our prejudices are not deduced from our theory but the latter is elicited from them. Besides, we are not interested in condemnation or in prescribing rules, but in analysis and distinction. There is no reason why people should not take their æsthetic enjoyment in bits and punctuate it with exercises of the theoretic intelligence, with passing judgments on politics or psychology or criticising testimony, etc., if that pleases them. Here we insist on the distinction, not on the division.

Croce is fond of giving "*le mot juste*" as an example of artistic creation. If it cannot be called an example of a complete artistic product, it is certainly illuminating to consider it as a minimum or unit. Now "*le mot juste*" is essentially metaphor, and as such its æsthetic interest does not lie in its being "*juste*," exact, or accurate; this would bring us back to the attribution theory, though of course when "*le mot juste*" occurs in argument, in anything of which the purport is

theoretic, it has to be considered for exactness, and then along with the epigram it is generally thought of limited use, if not an evil altogether. The æsthetic appeal of the metaphor depends rather upon its not being "juste". If we like to hear Keats speak of a star as "watching with eternal lids apart, like Nature's patient sleepless Eremite," this is not because we believe that a star has lids or watches or is a patient Eremite, but because we know that this is not the case. No information about stars is given, nor, as some might say, are we made to feel the essential nature of stars. For metaphors mutually contradictory or with almost nothing identical except the point of reference, may be successively used and approved. So Wordsworth calls the daisy "a nun demure of lowly port," "a sprightly maiden of Love's court," "a queen in crown of rubies drest," "a starveling in a scanty vest," and "a little cyclops with one eye staring to threaten and defy," each in turn "as is the humour of the game". In each case the æsthetic act is the contemplation of the contrast in similarity between "daisy" and that with which we compare or identify it. Similarity of course there must be, to make contrast, but that sort of similarity exists between everything and everything else in the universe, and the appropriateness of the metaphor is not determined by completeness of truth or exactness, but by relevance to the context, "as is the humour of the game".

The metaphor is indeed ubiquitous and omnipotent. It is the cell of which the living body of the artistic work is composed, and it is important to see that the life which flows through the whole also animates the part, especially as a proper understanding of the metaphor will help to dispose of many puzzles in æsthetic. In a way all language is metaphorical, and so we may identify linguistic with artistic. But important limitations must be added. Language is also used for the purposes of exact thought and for ordinary conversation, and in both spheres its function is semantic or deictic: it merely labels and points out, and this is effected in two ways. For exact thought we carefully guard against the interference of the æsthetic interest on the one hand, and against the reabsorption of our abstraction into the gulf of totality on the other hand, by eliminating all colour and suggestiveness, and we discount, if we cannot avoid, the metaphorical bearing of a word. In English we are helped in this by using foreign and unfamiliar words the value of which lies precisely in the fact that their other uses outside the context are either unknown or not thought of (*cf.* "demise" denoting a legal aspect and "death"). Thus, with the help

of the context, we pin down an abstraction and set a bound to meaning. In ordinary conversation, on the other hand, we heap up every colour in one confused mass and the suggestions are infinite. Here words denote that which we apprehend as an unanalysed and unbounded total. Hence too much and at the same time too little meaning is conveyed. In literature, again, a special kind of abstraction is exercised, and the colours are defined and suggestions bound down to the exact extent required by the situation. Hence in good poetry the absolute dependence of a word's value on its place in the context. *Æsthetic* value commences, then, with the mere use of language in a certain way, and so we can see a ground for our partial appreciation of works that as wholes have been said to be in-artistic. Every piece of vivid and figurative writing will have *æsthetic* value; if it is not artistic as a whole, it is at least made up of artistic elements, and so we get at any rate "*disjecta membra poetæ*".

It will be profitable, at this point, to recur to the danger of identifying the *æsthetic* act with every form of experience and its accompanying pleasure. From superficial reflection on the metaphor, it would seem as if nothing could give us complete pleasure till we have got it into a metaphor, and as if, once we have done this, we developed a new enthusiasm for both members of the comparison. Daffodils, the moon, autumn, gnats, the sunset, the skylark, may ordinarily arouse a feeble interest or liking in many of us. But when they are severally spoken of as "a jocund company tossing their heads in sprightly dance," "wandering companionless among the stars that have a different birth," "close bosom-friend of the maturing sun," "mourning in a wailful choir," "the flaming monstrosity of the West," "a bright spirit pouring his full heart in profuse strains of unpremeditated art," then a magic wand seems to have turned into objects of love both these and the things with which they are brought into relation—jocund companies dancing, lonely wanderers, wailful choirs, monstrosities, spontaneous singers, etc., and it might therefore seem that enjoyment of these things and the poetic activity are identical. But the appearance is fallacious. We do not really think these things are what the poet calls them. They are themselves, and when left to ourselves we may have no particular liking for any of them. A primrose, to us, a primrose is and nothing more, and we may think a faulty philosophy only can find sermons in every stone. Even under the poet's influence it is neither member of the several pairs that we like or are interested in. What we do like is to hear the poet talk of them in the way in which he does. The *æsthetic*

enjoyment lies in dwelling on the contrast in similarity between the two terms and on the movement from one to the other and back again.

So, because we may sing of our loves, our drinking, or fighting, our pleasure in the scent of flowers, in swimming, eating, hard work or high thinking and noble doing, it does not follow that to fight, to eat, to love, to be fond of flowers, to admire virtue and wisdom, etc., are æsthetic acts or that their pleasures or the interest in them are in any way poetical. Yet certain of these acts or interests and pleasures are called poetical, and are contrasted with others which are supposed to be dull or pedestrian (*e.g.*, to marry is generally held to be prosaic, while free love is considered poetical). To dwell on these or elements of them or of anything under the sun, in certain relations, is an æsthetic act. Guyau almost says we can drink a pastoral symphony and eat a lyric. He might go on to say that we can fight an epic, voyage an Odyssey, live a tragedy or poem (the latter is actually a well-known expression). No doubt to dwell on drinking fresh milk, in relation to other things, as he does, and *e.g.*, to identify it with hearing a pastoral symphony, is an æsthetic act. But it consists not in the drinking or its pleasure but in the contemplation of the contrast in similarity thus set up.

In this way we can also solve or dismiss the problem of the inclusion in literature of the bad and unpleasant. If the poet does not, as we have seen, make us like or be interested in what is good and pleasant, then he need not do this in the case of what is bad and unpleasant. But in the region of the latter, as everywhere else, he can find or create his contrasts, measured development of situation, and apply his metaphors. And then the paradox of admiring or being pleased with what is bad or unpleasant disappears. For the pleasure in literature is in apprehending these contrasts and is not the pleasure or interest in the "things" contrasted, just as the pleasure derived from seeking and finding an explanation is not a pleasure in the things explained.

But here we must again beware of referring to an external reality. Just as the scientific names of flowers denote the scientist's flowers and not those of the poet nor those of everyday life, and just as all scientific terms are defined by their universe of discourse, so terms in literature are fixed by their context, and we must not uncritically identify any case we meet with in literature with anything we apprehend as a total in our experience. Thus a "murder" in a Greek tragedy is not like a murder committed before our eyes, and again, while many vices in life involve meanness, pettiness

or squalor, these, unless necessary for æsthetic reasons, are generally absent from what may be regarded as the corresponding analogues in fiction. Not that wickedness in fiction is not really wicked, but it is not presented merely as wickedness, to be arraigned and condemned, just as goodness is not presented for admiration and edification. Both are introduced only as contributory to æsthetic effect.

The above is but a re-statement, from the point of view of literature, of the old formal view of art, and is prompted by a suspicion that what has been added is, in the main, unintelligible, untrue or misleading. To show this a volume of negative criticism would be needed. Even the bare reference to some contemporary work necessitates a barbarous contamination of the views of different authors, and it is particularly difficult to capture and confine Mr. Bosanquet's elusive subtleties and draw out Croce's blunt brevities in one and the same general statement. But some remarks and queries may be taken for what they are worth.

The view that art gives us the characteristic, even if distinguishable from the condemned theory of the typical, is bound up with unresolved difficulties about degrees of reality and the meaning of the terms "significance" and "essential" when used absolutely. But apart from this, it brings us back to the standpoint of attribution and reference to reality. For if you profess to be giving the characteristic or essential significance of anything, you are, it would seem, making a statement which may be met with "yes" or "no". For it is not as if it were meant that an *accidens* or *proprium* of the characteristic is that it has æsthetic appeal but we must take it that its æsthetic appeal lies in its being characteristic and presumably also in our seeing *that* it is characteristic.

As for the theory that the work of art is to express, and more particularly, to express feeling or emotion, its main use seems to be to suggest ideas which its philosophical exponents very rightly reject; so that they would agree with most of what will here be said; only after the misconceptions it engenders have been dispelled, there seems little left in the theory to retain. It is a difficult enough account of such arts as architecture, dancing or even music; but if plausible anywhere, it should be so in literature. And it is, when it comes to simple matters like the short lyric, for example. We may say that Shelley's "Indian Serenade" expresses the passion of love, or "Love's Philosophy" the aspiration after free love through the feeling of oneness with Nature. Now this is reducing the work of art to the skeleton which some how underlies it and we have already criticised it. But we

may do so again from a slightly different point of view. If the poem is to be taken as expressing the feeling of love, in the way that the man might be said to be expressing it, by his looks or acts, by falling, fainting, failing, or if the interest in the poem is really an interest in the sex passion, or we will even say in the vivid presentation of it, that interest must be theoretic and ethical. We should firstly want to know whether the feeling existed anywhere in that particular form, and deciding that it did, we should condemn it, as lacking self-control. In the case of the second poem, we should certainly protest against the misconception about Nature and man's relation to it and against some highly improper sexual ethics. But the interest is not really in the sex passion (we may like good erotic poetry even if sex bores us, just as we may like drinking songs even if we think drinking an abomination), nor is it in sex ethics. Instead of these we might equally have had what at this level would be named as religious fervour, or the enthusiasm of the saint or the ascetic or the patriot, or, on the other hand, a taste for unnatural vice or the enjoyment of cruelty or contempt or every execrable feeling there is. That would make no difference to the æsthetic appreciation, and this would not mean that we take pleasure in these feelings or even that we are interested in them, at least ethically and emotionally or theoretically; for of course there is an æsthetic interest in the æsthetic whole. The æsthetic interest in all cases is in the metaphors, in the development through definite moments, in the balance and contrast. But what is this balance and contrast between? It is between characters, ideas, qualities, feelings (but not necessarily feelings), such as they are in the poem; whatever we say, we must do violence to an indivisible whole by analysis, just as we do in analysing the judgment into ideas. By divorcing these elements from the whole, we can form a framework, call it a feeling, and say that the poet expresses it. This is what the expressionist theory means at this level.

But, we may object, why *feeling*? The epigram hardly expresses a feeling, but develops a peculiar relation between ideas or circumstances or moral traits. (The analysis is in any case vicious.) The framework with which the writer is said to start may be a conception, ethical, political, religious, or metaphysical. Wordsworth in his "Ode on Intimations of Immortality" "expresses" a certain conception about the pre-existence of the soul, and Horace certain valuations about life. Of course, unlike the thinker, they do not merely label certain exact aspects abstracted from all feeling and

suggestiveness, *i.e.*, from the concrete of experience, in order to discuss their connexion with other such aspects. Theirs are concretes, though limited and defined and not, as we have seen, the infinite and indefinite concretes at the level of totality apprehension. Their language, too, is metaphorical, and to begin with, it is wrong to say that they start with these frameworks and express them. But because a poem differs in this way from a discussion, it cannot therefore be said always to express feeling. For even a work of speculative theory may be presented so as to appeal æsthetically, without there being more feeling than would have gone with a different presentation, except, of course, for the æsthetic pleasure in the æsthetic apprehension. If in the present discussion, instead of bringing out the arguments in the order in which they could best support each other, we had adopted an exposition designed to bring out and emphasise the contrast between what is expected of literature and what it is found to yield, there would *eo ipso* have been produced an æsthetic effect, however feeble. Plato's discussion of the ideas, which is as it were a rhythmic movement to and fro between the ideas and the many, and a dwelling on the contrast between the splendid clarity, fixity, and immutability of the former, and the mean obscurity and fluctuation of the latter, attracts us æsthetically even more than it convinces us logically. The æsthetic element, a matter partly of language, partly of the manner of envisaging and developing a problem and its solution, is prominent in Bergson, Schopenhauer, and in parts of Hegel. It might even seem that most philosophers, at any rate those with whom we disagree, were pleased with their own theories on æsthetic even more than on logical grounds.

The theory about the expression of feeling is adduced as an account even of our appreciation of natural beauty. We are variously said to find our feelings, express, embody, feel them into or in natural objects, or the latter are said to embody, symbolise, express our feelings for us. Animism would seem to be necessarily involved in the enjoyment of nature, and to explain the relation between mind and matter, we might think, it is not necessary to read theories of objective idealism or of materialism, but merely to look at a beautiful scene. Nature, then, it is said, speaks to us, and there is a soul in all things. But a careful scrutiny of our appreciation shows us that in the first place we are merely contemplating a harmony of forms, lines, and colours. The daisy, as the poet himself confesses, is after all a flower, an object of a certain hue and shape. That, then, is the æsthetic act; but

by a law of its nature it stimulates other æsthetic acts. If we are painters we proceed to draw and paint beautiful objects, and there is no question here of mind in matter, or of feeling and soul in sensuous forms, in spite of all that may be said about landscape painting; there is only beauty in matter. But as few of us are painters and most of us can to some extent use language, we generally proceed to æsthetic activity in words and the minimum of this will consist in using metaphor. Material objects may be simply compared or identified with other material objects. A daisy is called "a silver shield with boss of gold," and "a pretty star" as well as "a nun demure," "a sprightly maiden," "a queen," etc. But if we do speak of the material in terms of the spiritual, it is not because we see that matter is mind, or that the latter is in or is expressed by the other, but partly because we see it is not. The reverse process of talking of the spiritual in terms of the material is even more common and in either case there is nothing more than the æsthetic delight which the use of metaphor always gives, *i.e.*, that of seeing things in the contrast relation. Poetry is not to be identified either with mysticism or with materialism, nor is either of these, in itself, poetical. It is this overflowing, then, of the first æsthetic activity into another, *i.e.*, literary creation through metaphor, that gives rise to the above theories. This literary creation may also be stimulated by the æsthetic enjoyment of sculpture, architecture or music, and then its product may be ascribed to the latter arts as that which they "express," thus giving further support to the expressionist theory.

At the risk of raising many perplexities, we may apply the same account even to our appreciation of a beautiful face. A face, we say, appeals to us because it expresses certain feelings or qualities of character. But if, although we find sometimes that the owner does not possess these feelings or qualities, we still use the same language, surely in that case its value can be that of metaphor only. The feature and feeling ought to coincide in the same owner, if one "expresses" the other, but the appropriate application of the analogy need not depend upon the coincidence.

Supreme as is the æsthetic satisfaction, nevertheless in the keenest enjoyment of any beautiful thing we are never completely at rest, but seem to be standing on the threshold of some mystery or be present at the dawn of some revelation. It is this which underlies its identification with some form of mystical philosophy. But in the first place, this feature is not peculiar to the æsthetic activity, but is common to any

intense experience, and in the second place, a careful scrutiny will show us that the dawn is not of an explanation, but of a further æsthetic creation, either in the same or in a different art.

If the expressionist theory comes to grief over a simple lyric or the enjoyment of natural beauty, a further difficulty ensues when the literary work is more complex, as in the case of the drama or novel. By expression of feeling do we mean that the feelings of the characters in the piece are expressed? Are we to say that Othello's jealousy is expressed, and then, speaking generically, that jealousy is expressed? If we say this we shall land ourselves into further difficulties of referring to reality. Feeling, it would seem, is by its very nature chaotic, indescribable, and ineffable, and the intelligence, when immersed in it, is at the level of struggling with undefined, unanalysed totality apprehended as such. Now while this is a very distressing thing in reality, the most delightful feature about characters in fiction is that they always feel in perfect similes and in clear-cut thoughts even when their state of mind is specially mentioned by the author as confused. In the novel one always feels with an "as if—" or with thoughts kindly presenting themselves, generally in marshalled array, whereas in reality the feeling is like nothing on earth except itself and there are no thoughts, or at the most thoughts still-born or wraiths and phantoms of thoughts; otherwise we should be absorbed in thinking, not in feeling. This difference, while a virtue for æsthetic purposes, is a fault from the point of view of faithfully rendering reality, which is the meaning that must be given to "expression" as used at this level. But though this meaning is common to most people who use the word, it is not Croce's or Bosanquet's. For to take a work of art in parts, like this, is to destroy its nature as organic. Shakespeare's Othello would then be a sum of expressions. The drama, however, is neither Othello's jealousy, nor Desdemona's submissiveness, nor Iago's cruelty and malice, neither the complication nor the unravelling of events, but a relation of all these or rather all these in a certain relation. We may call it a situation, rhythmically deploying itself. It is this unity as a whole, Othello as a complete play, that is said to express some feeling. But what can it express? How can feelings and actions in a certain relation be a feeling or express or embody one? Besides, if "to express" is to mean anything, it must be based on the literal meaning of pressing something out of somewhere, and imply that what is expressed exists before being expressed. But both Bosanquet and Croce strongly deny this. The feeling

is the drama or story and the drama or story is the feeling. Would it not be less misleading, then, to say that the writer creates something, not a feeling, but certain elements in a certain relation? The perplexity is really the same in the case of the short lyric. If Shelley's poem in any way does "express" the feeling of love, we have seen that it is not this which makes it a poem, but the movement through definite moments, the balance, the contrasts, the metaphors, and these are just themselves and cannot be said either to be love, or to be essentially of love, or to express love. If it be said that it is not the feeling of love which is expressed but the æsthetic delight (and this apparently is what is intended by the philosophical exponents), the answer is that the delight is *at* the apprehension of these very things and therefore cannot either be these, or be before them, or be expressed in or by them. Besides, if this is meant as an answer to the question "what is the æsthetic activity, and in what do we take æsthetic pleasure?" it is tautologous. For we are committed apparently to the statement that the æsthetic activity is the expression of æsthetic pleasure, and that we take æsthetic pleasure in æsthetic pleasure or in its expression.

The difficulties become still clearer, when the matter is looked at from the point of view of the reader or listener. The writer is said to express a feeling or emotion and to convey it to the reader, who is variously said to realise it, enter into it, or experience it. This reduces the æsthetic appreciation to having a feeling. We have already seen that to have feelings of any kind is not poetical, nor is it the poet's business to rouse any in us, though of course the apprehension of his æsthetic creation is accompanied by æsthetic delight. Here we may look at the question again. Amusement will be allowed to be æsthetic, but is it a feeling merely? We do indeed feel pleased when we are amused, but we feel pleased because we are amused (*i.e.*, apprehend objects in a certain way), and not the other way round. Being pleased and being amused are not identical then. And keeping away from the word "pleasure," is it not still confounding to say that in making a joke the humorist expresses his feeling of amusement, and in telling it to us successfully he conveys to us his feeling of amusement? What he does is to apprehend a certain situation, and when we do the same we laugh with him and are pleased. Laughter then depends upon an attitude or act of the intelligence, which like every other act is characterised by a unique feeling accompanying it. Intellectual illumination is also accompanied by a feeling; yet the two are not identified.

If the contemplation of the comic is not a feeling, neither is that of the tragic. To be sad is certainly not the same as to apprehend the tragic, but is to apprehend the tragic to be sad or does it involve this? The "cathartic" trouble in Aristotle's *Poetics* and the numerous cautions with which the "terror" or "pity" inspired by the sublime or the tragic have been hedged, are historic warnings against an affirmative answer. Here it is sufficient to remark that for anything to inspire merely terror, pity, or disapproval (*i.e.*, practical emotions or judgments) it need merely be apprehended as a totality or by its bare practical aspect, and the language adequate for communication is semantic or denotational. We pity most the misfortunes of our friends or country, but we do not dwell and linger on our pity or on the misfortunes, draw these out into metaphors, and present their various features to our attention in a special order. To do this would be not only irrelevant but absurd. So, merely to feel pity or terror, it would be enough for us to be told that King Agamemnon on his return from Troy was killed by his wife who had conspired with her paramour. The order in which we learn the events, the measured apportionment of the attention to each, the balance, the interplay of light and darkness, the orchestration of details, as it were, do not affect the practical import of the situation; they do not add to the criminality or horror of the action. Hence readers of novels who really pity their hero or detest the villain skip parts or turn to the end to find out their fate. The order of presentation, the rhythmic development, the writing, *i.e.*, the whole art, is to them immaterial or even an impediment. For the function ascribed to tragedy the argumentum of a drama is adequate; the tragedy itself is superfluous.

Tragedy certainly does not make us sad in the same way as a bereavement, for example, or if this be objected to on the ground of its being too personal and narrow, as the defeat of a great cause dear to us. Indeed it does not make us sad at all, but rather glad. Witnessing a tragedy is in itself an act of apprehending certain elements in a certain relation, and when unimpeded is accompanied by a feeling of satisfaction, though this is inextricably bound up with the sadness *in* the tragedy. Some have actually tried to explain this feeling of satisfaction by saying that tragedy shows us good somehow and in spite of all triumphant over evil. That would be an ethical, not æsthetic, satisfaction, and if it means that tragedy shows us *that* good is triumphant, this is again the attributional theory and is false. Tragedy

does not show us that anything is anything, and least of all that good triumphs over evil. The same objections will apply to the statement that tragedy shows us or expresses the seriousness of life. Because Iago is wicked and Othello in the tragedy kills Desdemona, why should we think that life, *i.e.*, our life and that of other people, is serious? We can only say that the play is a serious tragedy. We might well ask what Hecuba is to us and what we are to Hecuba.

Finally, when it is said that the æsthetic enjoyment makes us feel the energy of life and increases our vitality, the same may be said of any intense activity, hard thinking, working, fighting, etc. We can only mean that an intense activity is intense.

The expressionist theory as an interpretation of the other arts, cannot here be discussed. But in all of them, with the exception of painting and sculpture, it lacks even the plausibility which it has when applied to literature. When the Gothic cathedral is said to express the lofty aspiration of the Middle Ages, it may be suggested that the problem is one for the Logic of Analogy and Association rather than for Æsthetic in particular, except so far as it has already been alluded to under the question of metaphor and the stimulation of literary creation by the other arts.

Little as this theory seems to leave to art and more particularly to literature, it is yet not the same as the play theory nor does it state that literature consists merely in a certain order of words and sentences in metre and versification. The rhythm movement and development mentioned are those of an action, situation, feeling, and thought, or aspects of these, not merely metre, and their creation and appreciation are only possible to a being capable of every form of experience. If, however, the Muses still seem to have been too much stripped by it, it at any rate gains support from an examination of the utterances of artists themselves whose talk about their art amongst themselves is in the main technical, though they, too, sometimes indulge in moralising and false theorising. The theories here criticised are often espoused by people who, having the æsthetic appreciation but feebly, seek a substitution rather than a definition for it. It is not those who really appreciate music, who, on hearing a piece of music, make up a story or images which they then say the music expresses; they play through the piece, or listen to it a second time, or discuss it technically. The other procedure is adopted by those whose artistic appreciation is mainly literary, and who would seem to think that the function of one art is to express another.

Those again who have little artistic capacity of any kind, but who have the theoretic and ethical interests active, who are fascinated by emotions or wish to have these roused in themselves, or who being endowed with a large sympathy are interested in all things human, think the function of all the arts, and particularly of literature, is merely to satisfy all these wants. All these interests, as we have seen, come into literature, but only in a subordinate way, as means, conditions, material. Neither the operation of any single one of these, nor the co-operation of all these, constitutes in itself the æsthetic activity or interest.

The latter, after all, even if it is no other activity than itself, has a value as being an aspect of the intelligence. If its significance can be discussed, it can only be discussed in the same way and at the same time as that of all the other ultimate forms of experience. Art, and especially literature, may yet form a valuable, even the most valuable, datum for metaphysics, and a philosophy which will start from literature may perhaps prove as illuminating as those which have started from mathematics or biology or the moral experience. But for this to be possible, literature must first be strictly delimited from everything else, and some contribution towards this end may have been made by the emphatic restatement of an old view, valuable and safe from its very bareness. If it appear that tautology or mere naming characterises the positive statements ventured on, it may be pleaded that such a method, when accompanied by copious negative definition, is not fruitless; it at any rate steers clear of the dangerous ideal which finds illumination in confusion and imagines it has explained anything when it has made it out to be something else.

IV.—DISCUSSIONS.

THE MEANING OF 'MEANING'.

I VERY much hope that Dr. Strong will attain *one* of the aims he sets himself in his chivalrous defence of Mr. Russell's behaviourism in the July Number of *MIND*. I hope he *will* render it intelligible to Prof. Joachim, or at least will compel him to recognise, that Mr. Russell is not the *only* philosopher who believes "what no one can possibly think". But as for his second aim, that of 'meeting my objections,' I grieve to say that he does not seem to me to be setting the right way about it at all. Indeed, his procedure seems to me to be moving in a diametrically opposite direction, in which he cannot possibly meet my objections, unless the intellectual universe also should happen to be *round*, and so he should suddenly run up against them, just as he imagined that he had lost sight of them for ever! Or, dropping these metaphors from physical space, I would suggest that his endeavours to meet me are distressingly impeded by the all but universal and apparently invincible reluctance of philosophers, whether 'idealists' or 'realists,' whether 'critical' or 'naïve,' to describe what happens as it happens: they insist on some *ex post facto* rearrangement in terms of knowledge subsequently acquired and of some pet theory of their own, which they pertinaciously feign to be '*the*' (one and only) true account, though it is plainly one out of several that are about equally capable of assimilating the experienced facts. Now as I had used this question of Meaning as a good test of what I had admitted to be initially *alternative* methods of description, that of the agent and that of the contemplator, a mere attempt to show that the facts *can* be stated in terms of *one* of them is of itself a refusal to meet one of my chief contentions, which was that it was not the *only* method.

But this ignoring of the *elenchus* of the alternative method he was particularly summoned to recognise, is not the only stumbling-block I find in Dr. Strong's account. His handling of his own method seems to me singularly perfunctory, and amazingly incomplete. He considers only *one* case, that in which an 'object' is said to 'mean so-and-so'. Now this case is for me secondary, a mere consequence of using the object in purposive thought; but I can see that for Dr. Strong it must be primary. The value-judgment, however, which gives it this prerogative position also imposes on him the duties of deriving the 'personal' meaning, and of

explaining the relativity of 'the' meaning of an object to various cognitive purposes and personal meanings. These were the observable facts that led me to choose the other alternative, and to start by preference from the 'personal' meaning; but I cannot see that Dr. Strong perceives that it is equally incumbent on him to justify *his* choice.

Instead, he proposes to illustrate the acquisition of Meaning from a 'concrete' example, which he describes as follows (p. 312): "Suppose I hear the sound of an explosion. The explosion is a physical event, taking place at a distance from my body. The sound, on the sensationalist view, is a state of myself, occurring in or in close connexion with my body. As my only access to the explosion is through the sound, I react to the latter as if I had to do, not with a state of myself, but with the actual distant event: in other words, I objectify the sound. From the outset I never take it as a state of myself—although in truth it is one—but solely as a revelation, almost a sensuous embodiment, of the external event. Its sharpness, suddenness, loudness are regarded as characters of that event. The sound has thus not so much acquired, as become converted into, a *meaning*."

Here there is just one sentence, the first, that even attempts to describe the actual event; and even that describes in terms of theory, and begs a multitude of questions. The rest is all an interpretation in the interest of 'realism'. So impatient is Dr. Strong of the actual experience, so eager is he to get away from it to philosophic 'reflection,' and so content is he with a merely schematic *ex post facto* interpretation!

If I undertook to give a truly 'concrete' description of the situation apparently conceived by Dr. Strong, it would contain at least the following, with the *lacunae* it fills up italicised:—

"While thinking, placidly, on thought, I am startled by a sudden noise. (1)—It is too loud not to be objective, and besides I have never had such an hallucination of hearing. (2)—What was it, I wonder? (3)—An explosion, peradventure? (4)—But of what? (5)—And where? (6)—Well, what had I better do about it? (7)" —And so on.

This whole actual train of thought is condensed in Dr. Strong's version into "I hear the sound of an explosion," a colourless, paper proposition which one may surely say never could describe anyone's actual experience. He then goes on to describe the 'intending' which animates the 'personal' meaning-process, in terms of strain-sensations in the familiar way (since James), asserting (without argument) that they "become an awareness of the intending *only*¹ when *we*¹ turn our attention to ourselves, and *use*¹ them—[in order] to mean that act," declares (p. 313 s.f.) that "to mean something is to conceive or rather treat it as not wholly revealed to the mind at the moment," and draws the conclusion (p. 314) that "when I see an

¹ Italics mine.

explosion the same meaning essentially is presented to my mind as when I hear it".

Manifestly in all this Dr. Strong is only (1) contemplating 'the' meaning-of-a-thing, and moreover (2), in a merely *cognitive* way. He is not inquiring what it means for *action*, and if he perceives that this problem exists, shrinks from it. This he might be entitled to do if all were cognition, and if there were no such thing as action at all; but so long as he cannot claim to be in the position of Aristotle's 'God,' what he says is not enough. He can say it, of course, and put it forward as a purely cognitive analysis; but it does not cover the case of action, nor provide for any real action or activity, whereas the rival method (which he ignores) turns out to be more inclusive, because in ultimate analysis it can take cognition also as an activity and as involving a personal attitude.

The inadequacy of the contemplative attitude is not alone revealed in its failure really to describe activities: it blazes out, as flagrantly as ever, in its dealings with the self. The 'I' is the natural home and focus of all activities, and simply cannot be reduced to an observable object. Hence *all* intellectualist philosophies have suffered shipwreck on this impregnable rock. Not one of them has been able to give an account of the self that is intelligible and consistent. All have been forced into language which is a maze of contradictions and absurdities. Dr. Strong also, quite naturally and freely, uses language which attributes activity to the 'I'. He contends, quite rightly (though without explaining *how*), that the 'I' and the 'Me' cannot be different persons (p. 314). He admits, moreover, introspection, "when *we* turn our attention to ourselves". And then he actually tells us that "what his attention really fastens on is some obscure bodily sensation—if not the tension in his head muscles, then the rush of blood in his arteries" (p. 315), and that this disposes of the 'I'!

It is astonishing that after all that has been done by, and since, Hume and James to bring out this insuperable *crux* of sensationalism (and indeed of all attempts to explain activity away) a philosopher of Dr. Strong's eminence should profess himself satisfied with this sort of thing. For it seems so clear that nothing short of wilful blindness can fail to see that when "some obscure bodily sensation" is detected, it is detected in the 'Me,' and that the 'I' that observes it is *not* caught in the act of turning itself into an object. If *this* 'I' is an 'illusion' (p. 315), it is one which permeates, and presumably vitiates, every item of our experience.

Nor does Dr. Strong himself seem entirely satisfied with his doctrine. For he adds that "we *cannot* be aware of anything psychical that is not more or less concrete and sensuous. What is non-concrete and non-sensuous is always a *meaning*, a sense of that unfathomed beyond which we cannot contemplate but can only intend." Whence it would seem to follow that as all things psychical we can be aware of are 'concrete and sensuous,' and meanings are neither, meanings cannot be 'psychical'; but if so, how can

we be aware of them? Or if what is meant is that, though meanings are *in* the mind, they are not *of* it, what is it that *is* really and truly and fully 'psychical'? For it would seem that a *consistent* behaviourism should answer '*nothing*'! And this answer would leave only the embarrassment that as the whole population of the mind is allowed to claim 'objectivity,' nothing 'subjective' would appear to be left in it for the 'objective' to be opposed to. I am at a loss, therefore, to conjecture what Dr. Strong can mean here, consistently with his behaviouristic-sensationalistic description of meaning; and in particular what place in nature he assigns to that unfathomed abyss "beyond which we cannot contemplate but can only intend". To me that '*only*' conveys a delicious suggestion that man was made for contemplation, and not contemplation for man. And if this is an essential postulate of his philosophic theory, it is clear that personal meaning must go. Or rather it must be ignored *à tout prix*. For (to *my* thinking) it is quite concrete and knowable, and not a bit 'unfathomable'. We are far more certain of it than of any object of contemplation, which may always play us false, and turn out to be an 'illusion'. But if behaviourist-sensationalism merely ignores personal meaning because it has no room for it, it is merely begging the question I sought to raise. And if it does so for lack of reasons and merely to gratify a traditional bias, must it not be convicted of doing so *wilfully*, and thereby of surrendering to the voluntarism of which it perhorresced the 'irrationalism'? It would appear, therefore, that the existence of personal meaning remains a pitfall in the path of all intellectualism, alike of the sensationalistic and of the rationalistic type.

F. C. S. SCHILLER.

V.—CRITICAL NOTICES.

Logic : Part I. By W. E. JOHNSON, M.A., Fellow of King's College, Cambridge; Sidgwick Lecturer in Moral Science in the University of Cambridge. Cambridge: at The University Press, 1921. Pp. xl. and 255.

THE volume under review constitutes the first part of a work in which Mr. Johnson proposes to deal with "the whole field of Logic as ordinarily understood". Regarding the proposition as "the unit from which the whole body of logical doctrine may be developed" he devotes the present volume to the consideration of its nature, kinds and implications. In the three remaining parts of his work he promises to deal with demonstration, the logical foundations of science and 'formal probability'. The present instalment of this scheme is by far the most important contribution to logical doctrine which has appeared in this country since Mr. Bosanquet published his study of Logic as the morphology of knowledge; while in its own particular sphere, as an exposition and extension of Formal Logic, in conjunction with a discussion of the more philosophical aspects of the subject, in respect of which formal logicians have too often proved themselves indifferent or incompetent, it seems to me to stand without a rival. I proceed to call attention to some of the more important features and contents of the work.

Logic is defined by Mr. Johnson as "the analysis and criticism of thought" (p. xiii.); it is "a science whose central or essential function is to criticise thought as valid or invalid" (xvi.) He calls special attention in the introduction to his view that for the discharge of this function it is necessary to include in Logic what he calls the 'epistemic' as well as the 'constitutive' aspect of thought. "The former is a recognition that knowledge depends upon the variable conditions and capacities for its acquisition; the latter refers to the content of knowledge which has in itself a logically analysable form" (pp. xxxiii.-iv.). The point is of first-rate importance, since unless both of these aspects are recognised Logic, conceived as Mr. Johnson conceives it, as involving a criticism of thought from the point of view of its validity, becomes impossible, and the science is either merged in Psychology, as the Pragmatists recommend, or ceases to be concerned with thought at all, as some of the Neo-realists proclaim. Few Logicians, it is true, have adopted either of those extreme positions. They have generally presented

us instead with a mixed doctrine, in which psychological and strictly logical considerations are blended without either a clear distinction between them or a justification of their connexion. It is the special merit of Mr. Johnson that he does not offer us a confused doctrine of this kind, but is prepared to point out just how and why a reference to the 'epistemic' aspect of thought is essential for the comprehension of the logical system itself, and to indicate its bearing on different parts of logical doctrine.

The distinction appears in its most fundamental form in the contrast between the proposition, as an object proposed in thought, and the variable attitudes, such as assertion, doubt, supposition, which may be adopted towards it by a thinker. While holding that a proposition is "a single entity . . . that is the same whatever may be the attitude adopted towards it" (p. 6), Mr. Johnson regards it as equally important to recognise that "it is not, so to speak, a self-subsistent entity, but only a factor in the concrete act of judgment" (p. 3), in which both the *assertum* and the act of assertion, both the object of thought and an "occurrent and alterable relation" to it of a thinker are included. Not only so, but for even the most rigidly formal study of the proposition it is constantly necessary to bear this relation in mind. Defining the proposition as "that of which truth and falsity can be significantly predicated" (p. 1), Mr. Johnson holds that these predicates "can only derive their meaning from the point of view of criticising a certain possible mental attitude" (p. 7). Or, as he elsewhere puts it, "the idea of truth and falsity, in my view, carries with it the notion of an imperative, namely of acceptance or rejection" (p. 224).

An essential reference to a subjective attitude is similarly discovered by Mr. Johnson both in the Law of Identity and in the formal laws which hold of compound propositions constructed by means of the conjunction *and*. Thus the former principle, for the traditional formulation of which he substitutes the implicative form, 'If P is true, then P is true,' is only significant if we "contemplate the proposition 'P is true' as one that may have been asserted in different connexions or on different occasions or by different persons" (p. 234). Consider next the Reiterative Law, $P \text{ and } P \equiv P$; the Commutative Law, $P \text{ and } Q \equiv Q \text{ and } P$; and the Associative Law, $(P \text{ and } Q) \text{ and } R \equiv P \text{ and } (Q \text{ and } R)$; which figure so prominently among the formulæ of the 'pure' Logic, which repudiates any subjective implications. Taking them in their fundamental logical meaning, as referring to the conjunction of propositions, Mr. Johnson finds that they "indicate in general equivalence as regards the propositions asserted, in spite of variations in the modes in which they come before thought. Thus the content of what is asserted is not affected, firstly, by any reassertion; nor, secondly, by any different *order* among assertions; nor, thirdly, by any different *grouping* of the assertions" (p. 30).

It is, again, by reference to the 'epistemic' aspect of thought

that Mr. Johnson finds a solution of the paradoxical consequences which seem to follow in certain cases from the employment of the familiar formulæ of Formal Logic. Thus, from the proposition *P*, asserted as true, we can pass by implication to the alternative proposition '*P* or *Q*,' and from this to its equivalent '*if not-P then Q*,' whatever propositions *P* and *Q* may stand for. So, too, from *P* we can pass to '*P* or not-*Q*,' and from this to '*if Q then P*'. Or, summing up in general terms, (i) a false proposition (*e.g.* not-*P*) implies any other proposition, (ii) a true proposition (*e.g.* *P*) is implied by any other proposition. And these results seem to mean that from a false proposition any other proposition can be inferred, and that a true proposition can be inferred from any other proposition whatsoever. Now, Mr. Johnson maintains that while we can infer both '*P* or *Q*' and '*if not-P then Q*' from *P*, we cannot employ these propositions in further inferences without committing a fallacy of contradiction (if we now deny *P*) or circularity (if we now infer *P*), owing to the fact that these propositions have been themselves inferred from the original assertion of *P*. Or, as he puts it, with reference to the implicative form of proposition, "in order that an implicative proposition may be used for inference, both the implicans and the implicate must be entertained hypothetically" (p. 44); and this is impossible if the implicative proposition has itself been obtained from the assertion of one of these or its contradictory. In pointing out that the relation of implication extends beyond that of inferability, and that the difference is due to the presence of an 'epistemic' factor in the latter, Mr. Johnson seems to me to have laid bare the essential nature of these paradoxes. But ought not the appeal to the 'epistemic' factor to be made at an earlier stage by denying that '*P* or *Q*' can be inferred from *P*? Surely inference, as a species of thought, must involve an increase in the determination of its object; and, if so, it cannot be made to cover the mere slipping back from the determinate proposition *P* to the less determinate '*P* or *Q*'. While admitting that 'he is a solicitor' implies 'he is a solicitor or a barrister,' I hold that no one ever did or could infer the latter from the former.

Having dwelt so long upon Mr. Johnson's doctrine of the 'epistemic' reference of the proposition, we must now turn to his account of its structure. "In every proposition" he writes, "we are determining in thought the character of an object presented to thought to be thus determined. In the most fundamental sense, then, we may speak of a determinandum and a determinans: the determinandum is defined as what is presented to be determined or characterised by thought or cognition; the determinans as what does characterise or determine in thought that which is given to be determined" (p. 9). This distinction, taken by Mr. Johnson as equivalent to that between a substantive and an adjective, is at once more precise and more ultimate than that between the subject and predicate of traditional Logic. While the 'substantive proper' is an existent, adjectives, relations and propositions can function as

'quasi-substantives,' in so far as adjectives can be found to characterise them, the essential proviso being made that the adjectives so used shall conform to the category of the entity they characterise, the logical character of which is not altered by the peculiar use to which it is being put. Mr. Johnson introduces the expression 'characterising tie' to signify the unique connexion subsisting between substantive and adjective. "The general term 'tie' is used to denote what is not a component of a construct, but is involved in understanding the specific form of unity which gives significance to the construct; and the specific term 'characterising tie' denotes what is involved in understanding the junction of substantive and adjective" (p. 10).

It is of fundamental importance for Mr. Johnson's view to distinguish the conception of a tie from that of a relation. According to him relations are to be regarded as a specific kind of adjective, differing from ordinary adjectives by being transitive, since they include in their meaning a reference to a substantive other than that which they characterise. In a relational proposition, such as 'X hit Y' or 'A is to the right of B,' there is involved, in addition to the characterising tie, a further tie, the relational or coupling tie, by which the substantives in question are connected. "That a tie and a relation are distinct is brought out by considering the fact that if for a given adjective—whether ordinary or relational—we substitute another adjective, we have constructed a *different* unity; but, if we drop the characterising tie with a view to replacing it by some adjective or relation, then either the unity itself is destroyed, or it will be found that the characterising tie remains along with the adjective or relation so introduced. Similarly, the coupling of terms is not a *mode of relating* them for which another mode could be substituted; for, if they were uncoupled, again the unity would be destroyed" (p. 212). A tie, then, unlike a relation, is "entirely unmodifiable" (p. 11), and is not an additional component of the object of thought in which it is involved. Mr. Johnson points out that it is the failure to recognise this distinction which lies at the root of Mr. Bradley's contention that the notion of relation is contradictory as giving rise to an infinite regress. "The pretence of paradox is due to the assumption that to the act of relating or constructing there corresponds a special *mode of relation*; so that a tie is confused with a relation" (pp. 211-2).

Mr. Johnson's theory of the nature of a tie, of the difference between a tie and a relation, and of the distinctive functions of the characterising and relational ties, appears to me of first-rate importance. I find some difficulty, however, in following him in his account of the third kind of tie which he recognises, *viz.*, the assertive tie, and could wish that he had developed this part of his doctrine more fully, especially in view of the fundamental nature of the questions which it raises. We are told that whereas the substantive only exists as characterised by its adjectives and the adjective as characterising its substantive, "thinking effects a

severance between the adjective and the substantive, these being reunited in the *asserted* proposition—not only by the characterising tie, but also by the *assertive* tie" (p. 12). This new tie, for example, comes to be "blended" with the characterising tie when we pass from 'a tall man' to 'a man is tall,' or from 'a child fearing a dog' to 'a child fears a dog'. Hence the copula 'is' of traditional logic is said to be "a blend of the characterising with the assertive tie" (p. 13). Now I am not clear as to what it is that the assertive tie is held to unite. One's first impression is that it merely connects in some further manner the same components as the characterising tie, *i.e.*, the substantive and adjective which are the explicit terms of the proposition. This supposition, however, would contradict the principle that "the specific difference between one kind of tie and another is determined by the logical nature of the constituents tied" (p. 212), a condition which is, of course, fulfilled by the characterising and relational ties. Moreover, it is not consistent with this principle, or with the nature of a tie, which I understand to possess constitutive and not merely epistemic significance, to regard the assertive tie as merely indicating a subjective attitude towards the proposition. In trying to clear up the function of this tie I am led to notice the view expressed by Mr. Johnson in the following section (chap. i., § 7), concerning the relation of the proposition to fact. The position is there laid down that "any proposition *characterises* some fact, so that the relation of proposition to fact is the same as that of adjective to substantive" (p. 14). Now the recognition of a relation to fact seems to be essentially involved in assertion. Have we not here, then, our clue to the nature of the assertive tie? As connecting the proposition with fact it would have its own constituents to tie, as distinct from the explicit terms of the proposition, and would indicate the unity for the thinker of proposition and fact which constitutes the significance of the asserted proposition as such. I am not sure, however, whether such an interpretation is intended or would be accepted by Mr. Johnson.

The view that the proposition is essentially the characterisation of a substantive by an adjective, involving 'ties' of this and other kinds, seems to render it inevitable that a certain primacy at least should be accorded to affirmation and what is affirmed, over negation and what is denied. The point appears in one form in the discussion contained in chapter iv. of the use of the adjectives 'true' and 'false' to characterise propositions. It is pointed out that the first named adjective may be regarded as strictly speaking redundant, since to assert, consider, or doubt the proposition 'P is true,' cannot be distinguished from asserting, considering or doubting the proposition P itself. The predication of the adjective 'true' is, in fact, analogous to the use of 'one' as a multiplier in arithmetic. On the other hand, the proposition 'P is false' is regarded by Mr. Johnson as a genuine 'secondary' proposition (*i.e.*, as a proposition of a higher order, in which an adjective is predicated of a 'primary'

proposition), which "can only be co-ordinated with primary propositions after a certain change of attitude has been adopted" (p. 53). This want of co-ordination, it is shown, necessitates the recognition of a special condition of the validity of the process of obversion, in which a passage is made from the denial of 'S is P' to the affirmation—'S is non-P'. The process, Mr. Johnson points out, is only valid if to the premise 'S is-not P' there is added the further premise 'S is,' i.e., "S denotes something of which some adjective may be predicated truly in a proposition not merely verbal" (p. 72). He accepts, moreover, the view that the "relation of incompatibility lies at the root of the notion of contradiction" (p. 15), and this is of course founded in the positive natures of the incompatibles. Hence, for him, the negative term 'non-P' is no longer the infinite name of traditional Logic, but stands for an unspecified member of the series of determinations alternative to P of some less definite positive adjective or 'determinable'. Such a term as 'non-conscious,' which "does not stand for any single positive determinable which would generate a series of positive determinates," is not, he declares, "properly speaking an adjective at all" (p. 239).

Mr. Johnson is not, however, prepared to abandon the conception of pure negation, which he defends, in particular, against the aspersions of Mr. Bosanquet. The term, he maintains, has more than one meaning which is legitimate and real. It may, in the first place, "mean the simple attitude of rejection, as opposed to that of acceptance, towards a proposition taken as a unit and without further analysis" (p. 66). Thus, "when some assertum is proposed which can be clearly conceived in thought, and yet repels any attempt to accept it, then the attitude towards such an assertum to which our thinking process has led us is strictly to be called that of pure negation" (pp. 66-67). As an example of the more usual meaning, according to which the denial is contained within the proposition itself, he gives 'wisdom is not blue,' explaining, however, that "such a proposition would have purpose only in a logical context where we are pointing out that certain types of adjective cannot be predicated of certain types of substantive" (p. 67). In all other cases I understand him to maintain that, although the form of predication may be purely negative, a positive factor must be recognised in the judgment, since the denial of the proposed adjective "involves the affirming of *some* other adjective of the same generic kind" (p. 68). Since Mr. Bosanquet admits that "negative judgment does begin with a phase inappreciably differing from the infinite judgment,"¹ and since Mr. Johnson recognises that a positive element, though "evanescent," is involved in both his types of pure negation, examples of which are moreover admittedly rare, it might be held that the controversy does not contain much substance. Such a view would, however, be superficial, since the difference springs not merely from the greater prominence of analysis in Mr.

¹ *Logic*, vol. i., p. 286.

Johnson's method, but from his insistence upon the necessity of recognising the primary character of 'otherness,' which "does not presuppose or require a previous assertion of any relation of agreement or of difference" (p. 22). On the contrary, "comparison with respect to any determinable character, whether it yields identity or difference, presupposes otherness of the substantives characterised by the determinable in question" (p. 193); while the ultimate adjectives, or 'determinables,' are disparate or incomparable with one another, relations of agreement and difference subsisting within but not between them. In this connexion one cannot but notice Mr. Johnson's simple suggestion for the solution of the much discussed problem of external and internal relations. He holds that "relations between adjectives as such are internal; and those between existents as such are external. In this account, adjectives are to include so-called external relations, even the characterising relation, as well as every other relation. The otherness which distinguishes the 'this' from the 'that' is the primary and literally the sole external relation, being itself direct and undervived. And this relation is involved in every external relation" (p. 250).

Incidental reference has been made above to the two most important features in Mr. Johnson's treatment of the adjective, *viz.*, the inclusion of relations as transitive adjectives and the distinction of adjectives into determinables and determinates. A determinable is not merely a less determinate adjective, but is capable of being determined and of thus giving rise to a definite series of determinates. In his development of this subject Mr. Johnson brings out the important differences between the relation of a determinable to its determinates and that of a class to its members; or, to put it otherwise, between a proposition in which a less determinate is predicated of a more determinate adjective, as in 'red is a colour,' and one in which an adjective is predicated of a substantive, as in 'Plato is a man'. The point is clearly one of great importance and possesses far-reaching consequences, for Philosophy as well as for Logic.

Mr. Johnson's treatment of the more strictly formal part of Logic is distinguished, in the first place, by his adhesion throughout to the view that the proposition is the unit of the logical system. In accordance, too, with his analysis of the proposition, its intensive aspect is always kept uppermost, and the secondary and subordinate character of the class interpretation, which has figured so prominently in the traditional formal logic, is insisted upon. It is, indeed, he holds, "only when arithmetical predicates come into consideration that the notion of extension seems to be required" (p. 123). "In spite then of the prominent employment of the word *class* both in the treatment of propositions and still more in that of principles of the syllogism, it may be maintained that there is no real reference in thought to the class as an extension, but only a figurative or metaphorical application of the word which serves to

bring out certain analogies between such notions as inclusion, exclusion, and exhaustion, which apply primarily to parts and wholes and are transferred as relations between propositions and their constituent elements" (p. 124). The classical example of such transference is to be found in the use of Euler's diagrams and similar devices for the representation of propositions. Mr. Johnson points out, however, that so far from supporting a merely extensive interpretation, the full significance of the diagrams themselves is not appreciated until it is recognised that intension is represented by the boundary line determining the area which is the analogue of the class. The comparison is worked out in detail in a very interesting manner (chap. viii., § 4). A source of much confusion which has crept into the more recent treatment of Formal Logic is removed by the insistence that 'existential' as applied to a proposition should be understood in its proper sense as referring to existence, as distinguished from subsistence, the term 'instantial' or 'indeterminately instantial' being used when all that is intended is a certain method of formulating any general proposition. The further and consequent confusions which have centred round the conception of a universe of discourse are also admirably dealt with. Of the still more important constructive development of the formulæ of Formal Logic it is impossible to give any adequate indication here. Its most striking feature is the way in which Mr. Johnson has succeeded in working out the systematic relation of these to each other, and work of this kind does not lend itself to detached comment but must be studied as a whole.

In making this attempt to call attention to some of the features of Mr. Johnson's work, the chief difficulty throughout has been to make a selection of the points of greatest interest and significance. For Mr. Johnson is never satisfied with merely saying better what has been said nearly as well before, and there is hardly a page in his book which does not throw new light on the subject with which it deals. Its fullness of matter is only imperfectly indicated in the index at the end of the volume, and it is to be hoped that this defect will be remedied in later editions, or, better still, in the completion of the work, to which all its readers will eagerly look forward.

JAMES GIBSON.

Divine Imagining : an Essay on the First Principles of Philosophy.
By DOUGLAS FAWCETT. London : Macmillan & Co., 1921.
Pp. xxviii. 249.

THIS book is described as 'being a continuation of the experiment which took shape first in "The World as Imagination," and as being 'no. 2 of the "World as Imagination" series'. It gives a shorter, clearer, and more brightly written account of the general view set forth in the previous work; and the author hopes to follow it up later with a book on the problem of Individuality. The

doctrine here expounded with considerable skill and great wealth of illustration is one at which Mr. Fawcett has been gradually arriving. His earlier writings might be broadly characterised as pluralistic, with a distinct affinity to Pragmatism and Humanism. Many traces of this earlier attitude are still to be found in his present work; but he is now more nearly related to the dominant school of British idealism, especially perhaps as represented by Mr. McTaggart. To Hegel, however, and to Mr. Bradley he is still markedly opposed. Probably his general position will be best understood by noticing the grounds for this opposition.

Hegel is of course commonly accused of rationalism. His system is often described as one of 'panlogism'. It is very easy to bring forward difficulties in the way of his system thus interpreted. The most obvious difficulty is that with regard to the transition from Logic to the philosophy of Nature. Schelling's reference to the 'ugly black ditch' has been often repeated. In particular the objection has been driven home in our own country by Mr. Pringle-Pattison and Mr. Ward. The old reference of Mr. Bradley to the 'unearthly ballet of bloodless categories' is also still remembered, and his later quotation of the line ascribed to Shakespeare—'Love has reason, Reason none'. Even Mr. McTaggart, though professing in the main to interpret Hegel, has given to emotion and to individuality a place that is not easily to be found in the words of the master. At any rate, most people admit that the philosophy of nature is the weakest part of the Hegelian system. Now Mr. Fawcett, adopting independently a suggestion previously put forward (as he has himself noted) by Frohschammer, urges that the missing link is to be found in Imagination, whose claims he supports with much vigour and considerable subtlety, and in a style of imaginative daring that corresponds very well to the principle that he has chosen.

So far as Hegelianism is concerned, it would of course be out of place here to attempt its defence, even if I felt myself competent for such a task. It must suffice to say that there has probably been a good deal of misinterpretation of it. Hegel's last word, it should be remembered, is not Logic but Spirit. Logic itself, as he conceives it, is in the main a process of dialectic by which we are led to see the inadequacy of the more purely 'intellectual' or abstract conceptions, as contrasted with those that are more concrete and spiritual. Mr. Bradley's saying—'the more that anything is spiritual, so much the more is it veritably real'—may be a better expression of 'the essential message of Hegel' than 'the actual is rational'. It seems to be true, however, that he failed to show in a manner that carried conviction how a spiritual interpretation is to be given to the processes of nature. Hence even Hegelians may allow that there is room for reconstruction within this province; and the contention that such a principle of reconstruction can best be supplied by an appeal to Imagination is one that calls at least for careful consideration.

In support of his thesis, Mr. Fawcett claims that there are no less than sixteen respects in which Imagination supplies a more satisfactory interpretation than most of the other principles that have been appealed to—such as reason, feeling, or intuition. It would take too long to consider these claims in detail; but perhaps the main contentions may be conveniently summed up under a smaller number of general headings.

1. Mr. Fawcett claims that the conception of a creative imagination enables us to have a philosophy which is essentially monistic without being singularistic, and which leads to a view of ultimate reality that is anthropocentric without being anthropomorphic (if such a distinction may be allowed—the expressions are not Mr. Fawcett's). For the imaginative attitude (in its constructive, not in its purely reproductive aspect) is emphatically human, and yet leads to the transcendence of any particular individuality. It implies plurality, and yet seeks to combine the separate elements in a comprehensive unity. The exact relations that Mr. Fawcett believes to subsist between finite centres and the larger unity that underlies them will no doubt be more fully discussed in the work that he has promised on Individuality; but in a general way they are indicated in the present book, and the claims that he enumerates as 1, 2, 7, 9 and 16 all appear to relate to the advantages that his theory possesses from this point of view.

2. He thinks, further, that his theory, more adequately than any other, provides a place both for a perfect cosmic order—a 'divine event to which the whole creation moves'—and also for the apparent contingency in our finite experience; thus enabling us, among other things, to deal effectively with the problem of evil, without, on the one hand, denying its existence or ignoring its importance, or, on the other hand, throwing the responsibility for its existence directly upon the principle that underlies and supports the cosmic order. For imagination is constructive, and implies a process towards a certain completeness that is not at present realised. It implies a universe, but by no means a 'block universe'. The claims that he enumerates as 3, 6 and 10 seem all to be connected with this contention.

3. He urges also (what indeed follows pretty directly from what has just been stated) that his view enables us to believe that we can have a genuine apprehension of ultimate reality, and not merely of appearance; and that we can assign a definite place within that reality to activity, causation, things, relations, evolution, and the time process in general. His claims with reference to these points are enumerated as 4, 5, 6, 11, 12 and 14.

4. He claims, moreover, that from his point of view a new interpretation can be given to the Platonic doctrine of Ideas and to certain types of Oriental mysticism. For, though it is wrong to make any sharp antithesis between Appearance and Reality, or to describe the world of our present experience as *Māya* or Illusion, yet it has to be recognised that we find ourselves in the midst of

a process whose beginning and end are concealed from our apprehension; and we can only very partially conjecture the principles by which its course is guided. The references to these points are contained in numbers 8, 9 and 15 of Mr. Fawcett's claims.

With some reservations, I am disposed to allow that in the course of his exposition he makes good most of the claims that he has put forward. The reservations relate chiefly to the time process, the problem of evil, and the place of contingency, to which reference will have to be made later. If the difficulties connected with these could be satisfactorily removed—a pretty large 'if'—the principle of creative Imagination would not have much to fear. I think it must be conceded that modern psychology (at least in this country) has done but scant justice to the creative aspect of Imagination. When Ribot brought out his work on Creative Imagination in 1900, he had to note that the study of it had been almost entirely neglected by psychologists. Indeed, Mr. Fawcett's own work is somewhat disappointing in this respect. He does not bring out as definitely as one could wish the way in which the creative aspect of Imagination is related to its more receptive and reproductive sides. Perhaps the projected work on Individuality will supply what is wanted. But at least he has emphasised a principle which comprehends within itself many different aspects, and which is well adapted to conciliate many old antagonisms. Such oppositions as that between Realism and Idealism, or that between the types of Idealism represented by Plato, Berkeley, Hegel, and Schopenhauer respectively, certainly have their edges considerably blunted by a doctrine that enables us to recognise that all that we are and know may be characterised as being 'such stuff as dreams are made of,' and yet that it does not on that account cease to have genuine objectivity, reality and significance; and this is what I take to be the gist of Mr. Fawcett's argument. Nor is the reconciliation between these apparently antagonistic schools brought about by the way of compromise or accommodation, but rather by the emphasis that is laid upon a more comprehensive way of thinking.

What seems to be most fundamental in the theory that is here maintained is that no form of existence is to be regarded as atomic. 'All things,' as Mr. Fawcett is fond of quoting, 'in one another's being mingle.' Imagination supplies the 'spiritual bond' by which separate existences are combined in a single Cosmos. No doubt, as Mr. Fawcett is aware, the necessity for such a bond has, in some form or other, been recognised by most, if not all, the writers who can, in any really intelligible sense, be described as idealistic. Indeed it has been contended (by Mr. J. W. Scott, for instance, in his recent work on *Syndicalism and Philosophical Realism*) that it is the presence or absence of such a recognition that constitutes the essential difference between idealism and realism. Certainly, in most other respects the distinction appears to be somewhat evanescent. However that may be, Mr. Fawcett at least lays

great stress on this point. In order to give emphasis to it, he has even ventured to coin some new words. He refers to the mode of apprehension in which distinguishable features are comprehended as 'consciring'; and, in order to mark the contrast between this and less synoptic modes of apprehension, he uses the terms 'scious' and 'sciring'. There is certainly some logical justification for these innovations. The English use of the terms, 'science,' 'conscience,' 'consciousness,' etc., would undoubtedly seem awkward and confusing to any one who had not become familiar with it; but it is probably too late to try to make the English language logical or scientific (perhaps Mr. Fawcett would prefer to say 'conscientific'). 'Consciring' would perhaps be a convenient word to adopt; but it may be doubted whether 'scious' and 'sciring' could ever come into general use. Might not the terms 'apprehend' and 'comprehend' serve sufficiently well to mark the distinction that he has in view?—I mean as they are used, for instance, by Shakespeare when he says of 'strong imagination' that 'if it would but apprehend some joy, it comprehends some bringer of that joy'. Or again Kant's term 'synoptic' might serve to indicate what Mr. Fawcett means; only unfortunately it has no corresponding verb. Mr. Sorley (in his book on *Moral Values and the Idea of God*) has recently used it a good deal in connexion with the work of imagination (pp. 252, 262, 463, etc.). 'Synthetic' of course is misleading. It seems to imply the pre-existence of disconnected elements. Mr. Ward brought out long ago its unsatisfactoriness in psychology on this account. But, at any rate, whatever we may think of the language, Mr. Fawcett's exposition of what he understands by 'consciring' is certainly one of the most interesting and instructive parts of his work.

The general doctrine of Imagination, however, is perhaps not quite as new as Mr. Fawcett seems to believe. Though he refers to Frohschammer, he does not appear to be acquainted with the interesting work on *Die Phantasie als Grundprincip des Weltprocesses*, in which the general significance of Imagination as a creative power is discussed. It is true that Frohschammer professed to eschew metaphysics, and set forth his doctrine in a more tentative and much less fascinating form than Mr. Fawcett. But the general conception appears to be similar. Many metaphysical 'idealists' also have, more or less explicitly, recognised the creative function of imagination. Hegel himself is never more in his element than when (as in the *Æsthetic*) he is dealing with imaginative creations. Edward Caird, one of the most faithful of Hegel's disciples, once remarked that any one who understood Shakespeare would have gone a long way towards the understanding of God—which seems to be a way of saying that the world is to be regarded as a product of creative imagination. Mr. Pringle-Pattison also, who, though somewhat critical of Hegel's work, is to a large extent associated with the same idealistic tradition, has declared (*The Idea of God*, p. 127) that 'the truth of the poetic imagination is perhaps the

profoundest doctrine of a true philosophy'; and has even quoted with approval the saying of Mr. Yeats, that 'whatever of philosophy has been made poetry is alone permanent'. Mr. Sorley's recent work has already been referred to. He says in one passage (p. 262) 'The philosophical synopsis is a process in which imagination is called in to construct a new intuition, based on the facts and connexions laid bare by analysis, but imitating the togetherness or wholeness of perception'. Is not this 'consciring'?

Such anticipations or parallels, however, do not either impair the value of Mr. Fawcett's work or detract from its originality. They only serve to show that the theory which he seeks to maintain is one that many people have been feeling after and partly recognising. No one, so far as I am aware, has definitely worked it out as a bold metaphysical construction; and certainly no one has brought it so impressively into relation to the speculative thought of our time. And we may say of him, as Aristotle said of Plato, that his discourses 'are never commonplace; they always exhibit grace and originality and thought'. But it may be well to continue the quotation: 'Perfection in everything can hardly be expected'. There are at least some parts of Mr. Fawcett's work that I find it difficult to follow. He certainly ventures on somewhat daring speculations with regard to the way in which the creative Imagination may be supposed to have worked in the evolution of our world. He admits that what he says about this is only to be regarded as a tentative hypothesis—for 'dogmatism on issues of cosmic range is out of place' (p. 41). But in some respects at least one may question the plausibility of the hypothesis. The idea of a 'metaphysical fall' (pp. 186 and 225) is not altogether novel, and it is no doubt a convenient way of evading a difficulty; but it is surely not easy to reconcile it with the idea of a synoptic creative principle. One seems almost to miss the 'infernal serpent'. And, if the significance of the imaginative construction is to be taken seriously, one would suppose that it must have been due to a rise rather than a fall. It is somewhat difficult, indeed, to see at all definitely how the creative principle is to be understood. Mr. Fawcett states emphatically that the divine Imagination is not to be regarded as 'personal' (pp. 73, 217, 219); yet it would seem at least that it satisfies Mr. Balfour's criterion of personality—it 'takes sides'. It has to be noted, however, that Mr. Fawcett postulates (especially in chap. x.) a limited God, or perhaps limited gods and even demons, in addition to the Cosmic Imagination. But the relations between these do not seem to be made altogether clear. Again, the problem of time is touched upon much too lightly by Mr. Fawcett. 'There is no time,' he says, 'apart from time content' (p. 110). Agreed. But the time process, it would seem, has to make a beginning. It is, one gathers, a creation of the Divine Imagining. Such a beginning is surely even more difficult to picture than to conceive. Mr. Fawcett, like some other speculative philosophers, favours the hypothesis of recurring cycles; but he thinks of the cycles as

succeeding one another with modifications, like the successive editions of a book (p. 149). This is, in some ways, an attractive supposition; but at least it seems to imply something of the nature of 'trial and error' and a certain lack of foresight. 'Deliberation,' he says (p. 190), 'is a secondary phenomenon within a world, and one necessary to ignorance and weakness alone'. But I should have thought that 'trial and error' was even more obviously a sign of ignorance. He suggests that Imagining 'creates as a lark sings'; but it seems to be rather more like Browning's 'wise thrush' that repeats its notes twice over; and apparently it makes some false notes. In order to account for the presence of evil in the world, Mr. Fawcett is forced to recognise (pp. 143-144) an element of chance. But this seems to imply the existence of conditions external to the Divine Imagining. We seem to be involved in a dualism here, as Frohschammer perhaps even more obviously was. If we were to regard imagination as being, in Kant's phrase, a 'blind faculty,' it would be more easy to admit that it might sometimes lose its way; but its gift of 'consciring' ought surely to save it from such aberrations. Obviously Mr. Fawcett combines an intense realisation of the evils that exist in our world with an equally intense conviction that they will all ultimately be removed. It is a pity, I think, that he has not taken more account of the conception of a 'creation of creators' suggested by Howison and emphasised by Ward. This at least does furnish some explanation of the imperfection of finite individualities and of the conditions with which they have to deal. If evil means opportunity for creative activity, it is at least not as bad as it seems; and if, as Mr. Fawcett appears to believe, creative imagination is the supremest bliss (p. 100), we have not much reason to complain that some of the creating has to be done by us. There is, indeed, one striking passage (p. 189) in which this solution is pretty definitely hinted at. 'The Duchess d'Abrantès said of Napoleon's minions, after the return from Elba, "Ces hommes n'étaient pas les siens, ils étaient eux-mêmes"'. With the birth of the sentients Divine Imagining surrenders in part its control. The sentients are not wholly Its, but also "eux-mêmes"! But, if this is allowed, it hardly seems necessary to appeal to chance or to postulate a revised edition of the universe more nearly in accordance with the heart's desire. As Mr. Fawcett himself remarks (p. 102), 'there are symphonies that transform discords'. If once chance is admitted (though perhaps Mr. Ward's 'contingency' is not open to this objection), we seem to allow something that is quite beyond the control of the Divine Imagining; and, if this is allowed, how are we to justify the complete confidence that Mr. Fawcett evidently has in a 'far-off divine event'? The objection is no doubt partly removed by the recognition of subordinate gods. 'In the end,' Mr. Fawcett says (p. 234), 'all will be well, but the young sub-system . . . cannot escape the trials and misadventures incidental to its youth'. To one who is not acquainted with any of the gods or demons that are presupposed in Mr. Fawcett's account, it is hardly possible to

pass judgment on their wild oats or on their prospects of maturity; but it would seem at least that the Divine Imagining must be to some extent responsible for their upbringing. It almost looks as if they might profit by a mission from some of our newer educationalists. Of course, as Mr. Fawcett says in a different connexion (p. 223), 'our private imagining . . . is not adequate to cosmic imagining; and modesty enjoys reticence'. Still, if we put forward any hypotheses, we must try to make them as intelligible and coherent as possible.

There is a great deal of interesting material (some of it rather elaborate and highly speculative) in Mr. Fawcett's book with which it would not be possible to deal satisfactorily in such a review as this. It is very probable that some—it may be all—of the criticisms that I have made are due to an imperfect grasp of the author's meaning. It takes some time for his ideas to soak in. It is to be hoped that he will not fail to bring out before long the book on Individuality, which ought to clear up much that still remains a little dark. In general, it appears to me that he has made out a good case for assigning to imagination a larger place than it has hitherto held in the interpretation of the Cosmos; but I am not wholly convinced that it can stand so completely alone as he appears to suppose. I think he treats the logical understanding too slightly and the conception of value too slightly. The former defect is perhaps a legacy from his more pragmatic and pluralistic period. But, with all the qualifications that may have to be made, it must be allowed that he has produced an attractive book that should be read by every one who cares for the more speculative aspects of philosophy. Even if his theories are not entirely novel, and not entirely clear and convincing, his independent method of developing them and the suggestiveness of his exposition may well make his book serve as a landmark in metaphysical speculation.

I have only to add that the book is furnished with an admirable Table of Contents, but is unfortunately without an Index—a serious deficiency in a book of this kind.

J. S. MACKENZIE.

The Reign of Relativity. By VISCOUNT HALDANE. Third Edition. John Murray, 1921.

LORD HALDANE has written a remarkable book and it has had a remarkable reception. Both the book and its reception are significant. The book contains nothing sensational in its doctrine, even from the philosophical standpoint. It does not profess to put forward a new concept and therefore does not challenge comparison with works such as, to mention only contemporaries, Bergson's *Creative Evolution*, Croce's *Aesthetic*, or even Alexander's recent *Space, Time and Deity*. Yet it is admittedly a work of primary philosophical importance. Its reception, moreover, can

hardly be accounted for by the political and legal eminence of its author, nor by the public interest in the mathematical theory of relativity, nor even by the impatient eagerness of the philosophical public to read another exposition of Einstein. Yet the book was sold out in the first week of publication and within three months there is a third edition with revisions and additions. It is not difficult, however, to indicate the reason of this when we have regard to something peculiarly piquant in the present position of philosophy and its relation to the natural sciences.

At the beginning of the nineteenth century the influence of Hegel became, almost suddenly, the dominating influence in philosophical speculation. That influence has never been lost though it has manifested itself in various, often apparently directly opposite, directions. It began with the affirmation that mind and its activity, thought, or to use the Greek technical term, the *Logos*, is fundamental and all-comprehending reality. It set this forth in a phenomenology of mind as the basis of philosophy and in the formulation of a logic no longer purely formal but material. Yet there was one aspect of that philosophy, or rather one whole body of doctrine proclaimed by it and essentially a part of it, which for a whole century has simply seemed to call for apology. Every good Hegelian in fact has tried either to explain away, or at least to modify in his own case, the attitude which Hegel assumed towards the natural sciences, their axioms and postulates, and the methods followed by those who pursued them. Hegel's philosophy of Nature had to be tolerated, it could not be explained away, but it brought reproach on his whole system. Hegel himself was uncompromising. He poured contempt on the achievements of science, stoned its idols, and scorned its champions. To the patient scientific worker he seemed thereby only to cover himself with ridicule. The consequence was that throughout the great scientific nineteenth century the sciences ceased more and more to look to philosophy for support and became ever more estranged from it. In one case, indeed, that of the positive philosophy of Auguste Comte, the sciences cast off metaphysics as the enemy of true philosophy. Strong and self-confident they pursued their course and seemed at last, not indeed to reach finality, but to have established finally the general principle of scientific advance, however limitless the vista of knowledge might prove to be. In the twentieth century we are conscious of a notable change. The advance in knowledge has not, as was so confidently expected, brought new matter under old generalisations, on the contrary it has brought disconcerting dilemmas in the generalisations, and compelled revision of accepted principles. The extension of science has brought to view facts which do not accord with our postulates, and it is not the facts but the postulates which are suspect. Stranger still, from pure science itself, perfected and equipped with contrivances and with attainments such as Hegel had no power even to imagine, there comes the proposal to adopt

the Hegelian principle as the true scientific principle. For this, when it is interpreted, is what the new principle of relativity proves to be.

And what meanwhile has philosophy itself been doing? In the last thirty years philosophical speculation has tended more and more to group itself round two central and directly opposite and contradictory positions. One has taken the thinghood of the thing as the typical reality and emphasised the objectivity of existence and the subjectivity of the knowing relation; the other has taken the mind and its activity as the immediate intuition of reality, and conceived the fundamental universal reality as an original activity of which the individual mind is the type. The chief influences in consolidating the first or realist position have come from American philosophers, although we have notable exponents in England and perhaps the most complete systematic presentation of it in Mr. Alexander's book already referred to. The most striking formulations of modern idealist theory have come from the Latin countries, notably from Bergson in France, and from Croce in Italy, our own idealist philosophers, Mr. Bradley and Mr. Bosanquet, having followed more traditional lines. That is to say, they follow Hegel in conceiving the activity as fundamentally and essentially intellectual, as distinct from Schopenhauer who took will and Bergson who takes *élan vital* as original activity and intellect as derived, and from Croce who distinguishes an æsthetic activity which is not logical. But, speaking generally, modern philosophers either affirm that mind is a thing or a group of things or the property of a thing or of a group of things, or at least that it must be treated as such, and that its activity in knowing is essentially passive discernment; or, they affirm that mind is neither a thing nor a property but original and originating activity, and that the object of knowledge both in its form and in its matter is the expression of that activity.

Now the strength of philosophical realism, one might almost say its *raison d'être*, is physical science. Knowledge, it is held, in its ordinary (*a fortiori* in its scientific) intension, is not only meaningless, it is an unsubstantial shadow unless it have its roots in an existence which has absolutely no dependence on mind and the mind's activity in knowing. There is a difficulty in realism—the realist is fully aware of it—it is that we can only adopt the position of an independent existence by assuming it, for knowing it clearly cannot validate its independence. Yet if the assumption is necessary, and it is necessary if science depends on it, then it is the business of philosophy to verify and validate it. This is the vulnerable point in the theory of realism. On the other hand, the weakness of idealism is its apparent subjectivity, and its consequent attitude to science. It has generally acknowledged the necessity in science to assume independent existence for its subject-matter, and it has contented itself with pointing out the theoretical defect and the practical ground on which, and on which alone, it

may be justified. And now science, of itself, working along its own lines, has made the discovery that it has no need of the assumption, and still more that the assumption is positively invalid and an actual obstacle to scientific progress.

"If the principle of relativity is well-founded the very basis of New Realism seems to disappear into vapour" (p. 277). Precisely: let us take an example. Everyone acquainted with the controversial writings of the new realists is familiar with the problem illustrated in the elliptical appearances of the penny. It is the crucial test of the realist theory. There must be some sense, if realism is true, in which the penny is round even when and even though all its appearances are elliptical. The principle of relativity cuts away the whole ground on which the problem is posited. For according to the principle of relativity the proposition that the penny is round, if intended in any absolute sense, or if applied to any existence independent of a system of reference, is both meaningless and scientifically worthless. More than this the proposition can be positively disproved because for any actual system of reference for which it is true there are infinite possible and innumerable actual systems for which it is false. And yet more than this, if the observer change his system of reference for which the proposition that the penny is round is true, for another system for which while he is in the first system it is false, in changing to that system he makes it true for that system. What becomes of the realist's problem when paradoxical facts have to be acknowledged as indisputable fact? Science has left the realist in the lurch. He went out of his way under the supposed paramount necessity of being faithful to science, and science rejects his hypothesis. It is the idealist who was faint-hearted and is now rallied by science. "Why are ye fearful, O ye of little faith."

Lord Haldane has added in his third edition a further elucidation of the fact which had led to the formulation of the principle of relativity, the observed constancy of the velocity of the propagation of light. It is the result of the opportunity he has had, since the book was published, of discussing the subject with Einstein himself, and it makes clear precisely why, and in what particular respect, theory of knowledge is involved. When we analyse closely the nature of the process by which we compound velocities in the familiar cases of railway trains and the like, which consists in translating observed changes of position into constant units, say of miles and seconds, we see that it depends absolutely on our power of assuming a particular system to be at rest and of our being able to make use of that assumption. In all the ordinary cases of movements which we can observe in our practical experience, we are able to make this assumption, we do make it, and we can make use of it. In the case of the propagation of light and the compounding of its velocity with the velocities of translation, *i.e.*, with the velocity of the earth's own relative translation, we appear to be able to do the same, and in fact Newton

thought he had done so when he assumed his absolute space and time. But in fact we have no ground for the assumption and cannot make it, and if we seem to make it we cannot use the assumption we seem to have made. Newton did not really use his assumption though he thought it necessary. It finds no place in his actual equations of movement. It is this fact, that we cannot compound the velocities of the translations of systems with the velocity of the propagation of light because we cannot assume a system of absolute rest or make any use of a conception of absolute rest, that is expressed for us in the constant velocity of light. Because we cannot assume rest, our units of co-ordination (miles and seconds) transform themselves automatically. Now what does this mean in metaphysics? Clearly it can only mean that pure objectivity is a senseless abstraction. It is not measurable because it is not even conceivable. The concrete reality, the only reality the mathematician or the metaphysician can deal with is subject-object. This is essentially and substantially the position of modern idealism.

Lord Haldane's idealism has its own distinctive form. It is more faithful to the original Hegelian position than any other actual idealism. When Croce, for example, has told us what is dead in Hegel, we cannot help feeling that what is living has lost most of the magnificent grandeur of the original. It is this grandeur of the Hegelian concept which still holds its spell over Lord Haldane. For him as for Hegel the phenomenology of mind is all-comprehensive and the reasoning process is revealed as one and identical in every detail and in every department of its activity. This comes out with peculiar force in a criticism of Mr. Russell's methods, and leads to the contrast of the two different ideals of philosophy. "In literature, in art, in religion do we reason in ways like this?" he asks in reference to the formal principles of deduction illustrated in processes of mathematical reasoning (p. 283). The difference of the two ideals is not that for one the great spiritual problems, for the other minute problems of logical analysis, are the main attraction, it is that for one the problems are abstract and narrowly specialised, for the other the concrete life of the whole animates and reveals itself in the apparently least significant process. The same idea underlies the question with which he challenges the mechanistic position in biology. "If the categories of life are as much part of a non-mental world as are those of mechanism, why are not the categories of morals and beauty and religion also part of it?"

There is a minor point of some interest in Lord Haldane's account of Realism and Idealism. He gives Thomas Reid the credit of having been the first to reject the theory of representative perception (p. 295). Realists are indeed accustomed to vaunt this claim but historically it is not just. It was Berkeley who rejected the representative theory and that so effectually that it was impossible to revive it without incurring the charge of absurdity. So when Reid opposed his common-sense to Hume's scepticism, he

did not even attempt to rehabilitate Locke's representative theory. If it is a merit in Reid that he did not, or in any realist that he does not, hold a representative theory, it is because it is so difficult to be a realist and avoid it. If, as science assumes, the real object is not perceived but causes the perception then the perception must be representative. Idealism has no corresponding difficulty.

It is not, however, in the criticism of the new realism so much as in the expression of his dissent from various forms of idealism that the distinctive character of Lord Haldane's own philosophy appears. It is clear that Bergson's theory of the intellect—the idea that the activity described by Schopenhauer as will and by Bergson as life is wider and more fundamental than logic, and that intellect is a distorted mode of apprehending reality for a practical end and itself a product of creative evolution—is distasteful to him. He is sympathetic to Bergson's philosophy generally and especially to those parts of it which approach most closely to the Hegelian position. In one particular case he has pointed out and quoted a remarkable passage in the preface of the *Phenomenology* (Hegel's *Werke*, II., p. 35) in which Hegel seems to anticipate Bergson's *vraie durée*. The pure form of time, Hegel says, is an abstraction, its real character is that of *angeschaute Werden*, and as such it is inseparable from space.

Lord Haldane has not studied Croce or Gentile. With the latter especially he would probably find himself in almost complete agreement. He is at his best in his exposition of Hegel: and if the reader would know what in its fulness Lord Haldane takes the Hegelian doctrine to mean he will find its best expression in the interpretation of Goethe's *Faust* (p. 363).

According to this philosophy the reality of the universe is spiritual not material. Mind is not a kind of thing which looks out of the windows of a body and contemplates scenes of interest or a stage of action. Thought and knowledge are the universal concrete reality manifesting itself at different levels. Time, space, finite individuality are neither the ultimate stuff nor the absolute condition of existence. The universal activity is not transcendent but immanent in every form, in every degree, and at every level of reality, and these forms, degrees and levels are its expression. This is the kind of concept Lord Haldane has expounded in his *Reign of Relativity*.

H. WILDON CARR.

VI.—NEW BOOKS.

Psychologie du Raisonnement. Par EUGENIO RIGNANO, Directeur de la Revue internationale 'Scientia'. Paris: Librairie Félix Alcan, 1920. Pp. ix + 544. Prix 15 francs.

M. RIGNANO was thrown into a "vague state of uneasiness" by reading a number of the "best books on logic". For he found that they gave him no satisfactory account of the processes of reasoning with which they professed to deal. Accordingly he turned to the psychologists. But to his surprise he discovered that they hardly dealt with reasoning processes at all. Thrown back upon himself he remained for a long time unhappy: "Finalement, un beau jour, au moment où j'y pensais le moins, je vis tout à coup, et clairement, ce dont la recherche me tourmentait depuis quelque temps, c'est à dire que m'apparut le véritable mécanisme du raisonnement, tel qu'il résulte du jeu combiné de multiples activités de l'esprit". One of his discoveries was that reasoning is a complex process. Not only so, but the various subordinate processes which enter into reasoning also appeared complex. M. Rignano therefore set to work to analyse the complexity. In his book he reverses this procedure, and starting from those processes which he regards as truly elementary, builds up his account of the complicated and highly developed reaction which is commonly called "reasoning proper". The result is that a book which was intended solely as a treatise on reasoning, turns out to be "un traité complet de psychologie". No psychologist will be surprised at this result.

M. Rignano has written a bulky treatise. But the theory is a simple one, and can be expressed in a few words. The most fundamental characteristic of all systems of any kind whatever is a tendency to retain their equilibrium. If the system in question is organic in character, a disturbance of its order of arrangement may be either externally or internally initiated, but in both cases the system tends to return to the resting state which it had exhibited prior to the disturbance. From this return to equilibrium spring all needs and appetites: all movements of approach or withdrawal; of attack or flight; of acceptance or rejection: "cette seule tendance physiologique d'ordre général suffit pour donner lieu à toute une série de tendances affectives particulières des plus variées".

It may happen, however, that radical change has occurred either within or without the organism, in such a way that mere return to an original state of equilibrium is impossible. Then a partial return occurs, and we have a new resting state of "adaptation". Once any particular state of "adaptation" has been secured, and has persisted for some time, it acquires a tendency to recur. This is the tendency, "que possède chaque accumulation mnémonique en général". "Affective tendencies" then are all those modes of reaction which an organism adopts either in returning to a state of equilibrium which has been disturbed, or in acquiring a new state of "adaptation". They include all "needs," "appetites," interests, and all the executive side of instincts; but they are to be distinguished carefully from affective-tone—which merely accompanies them—and from

emotions, which seem to be treated merely as marking their sudden burst into action.

Suppose that an organism is disturbed in some way. At once there arises an "affective tendency" by the aid of which the organism may be adjusted to the changed situation. The adjustment, being really a mnemonic function, tends naturally to re-establish an old mode of response. But this, particularly as the situation to which adaptation is required may be only partially old, may involve the organism in serious difficulties. Accordingly there arises a new tendency, of a perfectly general character, one of hesitation, or of "is this really the sort of thing to be done now?" The strife of the "primary affective tendency," towards adaptation, with the "secondary affective tendency," towards hesitation, brings to birth Attention.

Attention deals always with cognitive details, with sense data, percepts, images, and ideas, determining their vividness and their relations by way of association. Rignano is not altogether sure about the vividness factor, and puts it down in part to "*une augmentation ou une diminution dans la quantité active d'énergie nerveuse spécifique constituant telle sensation ou tel souvenir*"—a statement the interpretation of which is very far from clear. But the association of cognitive elements effected through attention is directly due to the conflict between some primary affective tendency which has a specific end, and the secondary affective tendency of hesitation, or "desire" to avoid error.

Rignano is now prepared to answer the question, "What is reasoning?" Suppose a practical problem arises. There is the primary affective tendency to get rid of the question, and maintain equilibrium. Then there are generally a number of more specific affective tendencies leading to different experimental modes of solution, each one of these being attempted by actual manipulation. They are all controlled by a secondary affective tendency whose function it is to criticise, and by whose aid alternative solutions have a common end, and display internal coherence. Let the solutions be attempted, not by actual manipulation, but in terms of images, ideas, and thought, and we have reasoning. Reasoning thus is simply "*une suite d'opérations ou d'expériences simplement pensees*". It is literally nothing but a "*Gedankenexperiment*," to use Mach's term. It has this advantage over manipulation that infinitely more alternatives can be tried; and this disadvantage, that the chances of error are infinitely multiplied.

This brings us to the end of Rignano's fourth chapter. The next five chapters are occupied by an exhaustive study of the development of different forms of the trial and error behaviour which culminate in reasoning, from those of the lowest animals to those of the highest philosophers. Dialectic and "metaphysical" reasoning are next considered, and a chapter on "*les diverses mentalités logiques*" follows. Then come three thoroughly interesting sections on the "pathology of reasoning".

Dreams are, in striking contrast to certain other modern theories, treated as "non-affective" phenomena, while various forms of madness are put down either to "mono-affectivisme," or else to disturbances in certain of the special affective tendencies. The chapter on dreams is most ingenious, stimulating, and unsound. To say that the illogical nature of dreams is due to their purely intellectual character is delightful as paradox, but unconvincing. The fact is that dreams display about as many different tendencies of all kinds as does waking life, and no simple explanation is adequate to their interpretation. However, if only Rignano's chapter could awaken the "secondary affective tendency" of certain of the Freudians, and make them hesitate a little before their own structures, it might do excellent work.

In a brief conclusion Rignano tries to show how his views demonstrate that all life is committed to an endless struggle between the mechanism of the external world, and its own inner urge towards an imperfectly determined end.

In spite of its inordinate length, this book is thoroughly worth reading. It contains a large number of interesting and original ideas, and it attacks its problems with great daring, a lively fancy, and no small degree of insight. Yet it is unsatisfactory, and for these main reasons:—

(a) "mnemonic accumulation" is supposed to explain everything, and is in consequence so general as to be of very little help in reference to any specific difficulty;

(b) the connexion between the specific affective tendencies and "mnemonic accumulation" is not made clear;

(c) to lump all tendencies together and call them "affective" is to obscure the fact that they differ greatly among themselves, both as to their modes of origin, and as to their modes of operation;

(d) to say that reasoning occurs when manipulation is replaced by thinking (*i.e.*, when dealing with things at hand is replaced by dealing with things at a distance) is hopeless, since the obvious fact is that reasoning may occur in the process of manipulation just as well as outside of it;

(e) even if this characterisation were correct, it still would not answer the question of what reasoning is, but only of when it occurs;

(f) the chapters on the pathology of reasoning show a greater acquaintance with the literature of the subject than directly with the facts which they discuss, and, perhaps in consequence of this, they tend to ignore many of these facts—night-mares aside, it is, for example, simply a mistake to say that dreams are non-affective in Rignano's sense of the term;

(g) the relations between "affective tendencies," affective-tone, and emotion, though they are discussed, are not adequately considered.

Rignano's book is of great value for its suggestive treatment of a mass of psychological problems; but it by no means sets those problems to rest.

F. C. B.

Sceptica. By ADOLFO LEVI. Paravia & Co., Turin. [Undated.] Pp. 196.

Mr. Levi, whose excellent Platonic studies I had the pleasure of commending to the readers of a recent issue of *MIND*, in this well-written little volume plays the part, as his title would suggest, of Sextus Empiricus to all the "dogmatists" in philosophy from Plotinus down to Bergson, Croce, and Gentile. But there is a marked difference in temper between our modern sceptic and his ancient prototype. Both write with a light and agreeable touch in a way that can be understood by the average educated man, but Sextus is throughout cheerful, not to say jaunty. Mr. Levi speaks, in words which plainly come from the heart, of the condition of universal doubt as one of intense inner gloom and mental torture. And I do not wonder that he finds it so. The result of his examination is that every philosophy which professes to tell us anything about reality is condemned. Even the most thorough-going "idealist" is found to make somewhere or other the "realistic" assumption that we can know something about "objective" being. But, objects Mr. Levi, there is no ground for this assumption. In our experience we are all through shut up in the circle of the personal and subjective, and there is no outlet from it. Provisionally then, the least illogical of all doctrines would be rigid Solipsism. It is true that Solipsism is in absolute conflict with Ethics, for in Ethics

—Mr. Levi's "universal doubt" does not seem to have affected his confidence on this point—obligation is categorical and absolute. We ought unconditionally to act on the assumption that we have fellow-men and binding duties to them. We might, as Solipsists, make shift to get over the clash between our theory and our practice by urging that the rules of thinking and the results of logical thinking only concern us so long as we choose to play at the game of thought; action is a different game, and has its own rules. But there is worse behind. As we have no standard but thought itself by which to gauge the worth of our thinking, we cannot be sure that thought itself is not fundamentally wrong-headed. The superior logicity of Solipsism is thus no guarantee of its truth. The least coherent of philosophical theories may, after all, be the nearest to the facts. So Mr. Levi is left in the end doubtful even of his Solipsism, only sure that he must "do his duty" even if human life should have no real significance, and drawing what comfort he can from the thought that perhaps it is braver to do your duty on these terms than it would be if you knew that the whole business meant something.

It will hardly be expected that I should undertake an elaborate discussion of Mr. Levi's discussion of the errors of the dogmatists, which is always suggestive, even when it is least convincing. Of course he is right in saying that even the most "idealistic" system does make what he calls the "realistic assumption," and I think this should have suggested to him that very possibly the assumption is sound. It seems to me that his whole argument is vitiated by a false analysis of the act of experiencing itself. Like so many philosophical writers, he assumes that what we apprehend in an experience is the "content" of a personal and subjective process. I submit that we never apprehend the "content" of the process at all but in every case an "object" towards which the process is directed, and that, consequently, we have no need to escape by a miracle from a circle in which we have never been confined. To take an example; only the other day I received and read a friendly communication from Mr. Levi himself. I submit that Mr. Levi's communication which I read was not in any intelligible sense the "content" of the "subjective" process of reading; it was an object towards which that process (or, as I should prefer to say, that act), was directed. This is why I do not myself believe that the analysis of experience lends any support to Solipsism. And as for the still more ultimate doubt about the validity of thought itself, is Mr. Levi sure that it has an intelligible meaning? What do we suppose ourselves to mean when we talk of a "reality" by which we might test the validity of thinking? If we doubt whether one "hypothesis" will "save" all the "appearances," of course we look out for another which will "save" them. But if we have an "hypothesis" which does justice to all the "appearances," what is meant by the suggestion that it may after all be a false account of "reality"? Is not Mr. Levi rather like a child who is crying for the moon? I might add that at times his employment of some of the perennial *cruxes* (the antitheses of the One and the Many, the Infinite and the Finite, and the like), seems to me to involve the common fallacy of the "omitted alternative". And in one place there is what is not usual in Mr. Levi, a simple mistake about facts. It is not true that Kant committed the blunder of first denying that the Categories are valid of *noumena* and then using the Category of Causality to connect *noumena* with appearances. Kant is quite clear on the point that the only reason why we cannot apply the Categories to the *noumena* is that we have no direct acquaintance with *noumena* and so do not possess the means of "schematising" the Categories for *noumena*. That in some way the Categories, as the basis of all interrelation, do apply to *noumena* is assumed to be certain. The question I should, however, most like to put to Mr.

Levi is whether he has ever tried to draw any distinction between motivated and unmotivated doubt. If we find a theory working out to a formal denial of its own postulates, or, again, absolutely in contradiction of established facts, we have a sound motive for suspecting its truth, but the very suspicion reposes on the assumption that there really is a rational scheme of things. It is because we make this "realistic" assumption that we suspect a theory which appears to lead us into a contradiction. But the suggestion that "all thinking may perhaps be vicious" amounts to an unmotivated and purely wanton scepticism. It seems to me really much on a level with the alleged doubt of the German metaphysician whether the planet we call Jupiter "really is Jupiter" or not. And there are two final remarks I would make. I am not sure that Mr. Levi does not assume that the difficulties he raises about Theism or Monadism do not prove these doctrines to be not only self-contradictory but false. This, if he means it, is in him an inconsistency. If thought is possibly inherently fallacious there is no reason why the most self-contradictory theory ever propounded should not happen to be the exact truth. Also I do not think he is really entitled, even provisionally, to fall back for comfort on duty and its imperatives. We need thought to discover the path of duty as much as to discover the path of a planet, and if thought cannot be trusted I do not see how we are to know that we have duties at all, or, if we have, what in particular they are. This destroys Mr. Levi's last hope of comfort. It may be brave to fight in the dark against an unseen foe, if you believe you are fighting for the "good cause". But I see no special moral heroism in letting off a gun into the night at random, if you do not know whether you are aiming at any one nor, if you are, whether the target may not be your best friend.

A. E. TAYLOR.

Our Social Heritage. By GRAHAM WALLAS. London: Allen & Unwin, Ltd., 1921. Pp. 292.

Readers of *Human Nature in Politics* and of *The Great Society* will know that a new work by Prof. Graham Wallas is sure to contain remarks on a considerable number of topics. This is still more the case with the present volume, where the author, though excluding from consideration certain sections of our social heritage, leaves as his subject "the ideas, habits, and institutions directly concerned in the political, economic, and social organisation of those modern communities which constitute that which he called in 1914 *The Great Society*". He is led to consider successively, the expedients "by which the work and thought of individual human beings can be directed," the training of men when associated in groups, "the co-operation among members of a nation," and the attempts at world-co-operation. The ideas of liberty, natural rights, honour, and the like, the effect of supra-national influences such as those of science or of the Church, the dangers of professionalism, the value of such an institution as constitutional monarchy, come in for discussion by the way.

Different parts of the book will accordingly be interesting to different readers. Prof. Graham Wallas is always stimulating, his criticism, though it may not produce agreement, is never unreasonable, and those criticised will do well to consider what he has to say. Lawyers will probably find the section on the independence of judges among the less convincing parts of the argument, but they will recognise some force in what is said about their professionalism and their conservatism, points on which a certain number of lawyers have been ready to insist for themselves. Doctors may find that the author treats as though they were comparatively simple

questions of adjustment which are found difficult in practice, but they will note with appreciation his plea for division of labour. Members of the army may reject as impracticable the suggestion that an officer, even if specially able, should receive "part of his training on the sea and in the air as well as on land" (for this is a question of what is technically possible), but they will do well to consider their relation to the other departments of the state, which is discussed by Prof. Graham Wallas, if not dispassionately, yet with such an amount of detachment as is reasonably possible. Teachers will have no cause to complain that their importance is underrated; and they will be wise if they bear in mind all that is said about the large amount of teaching which has to be and is being done by amateurs. Teachers in the older Universities, though they may note that the author's information is not quite up to date, will no doubt be ready to consider suggestions which would add "perhaps 30 per cent." to the efficiency of their instruction. The student of nineteenth century history, of the development of party politics, or of the psychology of meetings as exhibited in recent important instances, will find much to attract him. Those who are concerned with the present position of the Church of England in relation to social and political questions, will sympathise with the author in the difficulty of ascertaining what that position is; they will probably suspect that some of the authorities cited by him do not carry great weight, and that some of them are liable to be influenced by a desire to correct, if not to contradict, the utterances of their contemporaries; but, without entering in this place on theological discussion, we may safely advise those who base their hopes of human improvement largely on religious influences to think carefully over the impression made by some of the most important branches of the Christian Church on a painstaking and, in part at least, a sympathetic critic.

Readers of this journal will probably, apart from the attraction which so multifarious a book is bound to have for many individuals of different kinds, feel a common and special interest in two matters.

One of these concerns the question of local or professional representation in the state, about which so much has been and is being written. In *The Great Society* Mr. Wallas, while recognising the defects of purely local representation and feeling doubts as to the possibility of remedying these completely by representation of minorities or by proportional representation, refused to be led into the purely professional organisation which the syndicalists desire, and suggested a compromise embodying both principles to some extent. In the present volume he adds to this by a useful criticism of Mr. Cole's recently-published *Social Theory*. He objects to Mr. Cole's distinction between the state, as being concerned with men's identity and not with their differences, and the organised vocations, as being concerned with the separate interests of the groups, on the ground that the state does not as a matter of fact show so great a tendency to uniformity in its administration as do the organised industries. It is true that this criticism appears to be rather unfortunate in form, as Mr. Cole's contention is, not that the state treats everyone alike, but that it is concerned with the interests which all citizens have in common: there is no reason why a body should not, in dealing with those common interests, pay due regard to individual differences. But the tendency of vocational groups to adopt rigid and uniform rules, on which Mr. Wallas lays so much stress, affords an additional reason for the central co-ordinating body being a strong one; and this is a point which those who agree with Mr. Cole would do well to bear in mind.

The second point is a more general one. Mr. Wallas is continually reminding us, whether in a critical or in a constructive mood, of the value of psychology and the psychological method of approach to the problems of

political philosophy. One passage suggests that he does not entirely understand the ground on which objection is taken by some people to this point of view. After some just remarks to the effect that, though a physiological psychologist may avoid terms such as 'consciousness, mental states, mind, etc.,' it does not follow that consciousness and the rest do not exist, he replies to a criticism by Mr. Ernest Barker which appears to Mr. Wallas to be misleading. Mr. Barker (*Political Thought in England from Herbert Spencer to the present day*) has said that 'to analyse the processes of social instinct that lie in the dim background of a society now united in the pursuit of a common moral object is not to explain the real nature or the real cause of such a society,' and Mr. Wallas comments that 'the "pursuit of a common moral object" is not, apparently, part of the legitimate subject-matter of psychological science'. It is not likely that Mr. Barker objects to the fact that psychologists study this subject: his point is that the psychological analysis taken by itself is likely to direct attention to the wrong point and not likely to lead to a solution of the problem. Habits which were originally developed for one purpose may serve a purpose which is entirely different: a study of the habit and of its history may convince us that its purpose has so changed and that its survival is caused in part by mere thoughtlessness or want of critical reflexion, but this study, like other historical studies, cannot enable us by itself to pass judgment on the institution which it serves. The value of an institution can only be tested by consideration of its tendency to promote social good or whatever else our object may be, that is to say, by arguments which may be biological or ethical or metaphysical but which can hardly be psychological. No one is concerned to undervalue the importance of what the psychologist has to contribute: he can help us much as to means, and, at any rate indirectly, as to ends. But is not the psychologist too much inclined to assert his complete independence for all purposes? We, none of us, have any wish for bad metaphysics, but can we dispense with metaphysics altogether?

P. V. M. BENECKE.

Addresses on Psycho-analysis. By J. J. PUTNAM, M.D., with a preface by S. FREUD. The International Psycho-analytical Press, 1921. Pp. 470 + v.

The International Psycho-analytical Library is to be congratulated on issuing as the opening volume of its series this collection of addresses by the late Prof. James Putnam, who died in 1918 at the age of 72. They are of particular interest and value in that they were written by a clinician of vast experience during the last ten years of his life, and moreover by one who had a great reputation as a Professor of Neurology at Harvard University. They are arranged in chronological order and are for the most part expositions of some of the principles of the Freudian theory. The book as a whole is by no means a complete exposition of psycho-analysis, and it has the objections inherent in this method of publication that it lacks continuity in subject matter and that it involves a large amount of repetition. On the other hand it gives us the advantage of being able to follow out the gradual development of Putnam's views and of being able to recognise his difficulties, and also of being able to realise more fully the deep sense of conviction with which he wrote and which is stamped almost on every page, both conviction as regards those points which satisfied him that Freud was right and conviction as to his beliefs that in many points Freud was wrong.

In spite of much opposition the psycho-analytical movement has been

steadily gaining ground during the last few years, and it requires a man with sound judgment and experience to view these theories in their right perspective and to estimate the elements of strength and the elements of weakness in Freud's doctrine at their proper value. This Putnam has done with his characteristic open-mindedness.

He would seem to agree with much of the criticism put forward by other impartial observers that many of Freud's conceptions, which are based on a knowledge of the psycho-neurotic mind, cannot be applied altogether to mankind in general, and he is of the opinion that Freud underestimates the importance of the conscious life. But he maintains that in so far as it is possible for anyone to investigate human nature and human motives by the scientific method Freud's theories are sound enough, though they are incomplete inasmuch as "the formulas of natural science express only a portion of the truth," for every act and motive of our lives is controlled by two sets of influences, the partial motives which psycho-analysis studies and ethical motives which are only thoroughly studied by philosophy, and "whatever a man does is done with a dim consciousness that his acts are inferentially based on a recognition of the bonds that connect him as a moral being with every other man and with the source of energy which underlies the universe".

Much of the book is taken up in defending these partial truths in so far as Freud as a clinician only pretends to deal with the aspect of the life of experience. Putnam entertains no doubt as to the fact that psycho-analysis gives the best chance for the reinstatement of knowledge, reason, and insight and considers it a 'piece of narrow intolerance' to raise the cry of exaggerated introspection as one of its dangers, when the neurotic's every moment is already spent in introspection of the worst sort. This is still a debatable point and is only true provided that due care is taken in the class of case analysed and when there is reasonable prospect of the treatment being carried through to a successful issue. He warns us however that psycho-analysis is a trenchant weapon and that extreme care must be taken in the handling of neurotic children if one wishes to do good and avoid harm, and his statement "I propose nothing so insensate as that parents or even teachers should practice psycho-analysis" is particularly appropriate at the present time, for the definite limitations to this method of treatment are apt to be forgotten. Most of the criticism hitherto has centred round the sexual problem, but Putnam, like all those who have had actual experience in psycho-analysis, regards the opposition to Freud's sexual theories as merely a matter of prejudice, and it is perhaps now more a question of terminology. Putnam uses the term 'sexual' in the broad sense and the significance of the term is apparent in that "in view of the fact that even in self-assertion feelings of personal relationship are present either towards oneself or towards others who stand in intimate connexion with oneself, the sex element cannot be excluded".

Although Putnam agrees with Freud as to the sexual element, and admits that the principle of the conservation of energy can be applied as profitably with reference to mental phenomena as it has been to physical phenomena, yet he is equally convinced that Freud misapplies the scientific method and utilizes these principles to the tacit exclusion of others which are still more significant. It is from this standpoint that his original views come into prominence, and he insists on the necessity for widening psycho-analysis by a study of philosophic methods. In this respect he is in closer agreement with Jung than with Freud, though he does not quite admit it, and it is difficult to understand why he objects so strongly to Jung's rejection of Freud's theories of 'infantile sexuality' and 'fixation,' for in his own view the basis of all conflict is the struggle between the sense of our infinite origin and the necessity we are under of attempting to express ourselves in

finite form, whilst the struggles between our infantile instincts and the influences tending toward a conventional life are only the symbolic basis for the conflict. Like Jung he refuses to accept altogether the materialistic dogmata—absolute determinism cannot hold for “we have no right to draw the implication that as no energy is ever lost, so no energy is ever gained and that we live in a world of determinism,” nor can he accept Freud’s hedonism, for “every man has a sense of moral values as a sort of birth-right”; his “dim sub-conscious visions in which the logical formulas of philosophic reasoning are foreshadowed” would seem to be equivalent to Jung’s ‘archetypes’. And like Jung he seems to hold that treatment must not be merely analytical but also synthetic as regards ethical obligations. He holds that the genetic principle, the tracing of the most complex manifestations of conscious life to the primary instincts, has been of immense service but that it leads us to a deadlock, and moreover Freud has given us no adequate argument to support the sweeping statements that he has made in regard to it. For Putnam evolution should be expressed as a circular process, beginning with what he calls the ‘psyche generatrix,’ an equivalent to Kant’s ‘causal energy,’ and this ‘psyche generatrix’ must be also the object of study, whilst the “energetic something which underlies evolution contains and uses at each moment an impulse of which human volition is the example most clearly evident”. There is an interesting chapter of a technical nature on *Griselda Phantasies* (Chap. X.) with a discussion on the origin of masochism. Dreams, in his view, call attention also to the stronger sides of our nature and these latter must be sought out, and “even if we assume that it is stretching a point to say that the meaning which is arrived at was not contained in the dream, this does not really matter” from the therapeutic standpoint. There is a valuable criticism of the work of Alfred Adler (Chap. XVI.), with which he sympathises to some extent, although he regards it as being not incompatible with Freud’s views. The book ends with an obituary by Ernest Jones and a bibliography of Putnam’s psychological writings.

E. PRIDEAUX.

Psychology and Psychotherapy. By WILLIAM BROWN, M.A., M.D., D.Sc., with a foreword by Dr. ALDREN TURNER, C.B., M.D. London: Edwin Arnold, 1921. Pp. xi + 196. 8s. 6d.

Dr. Brown’s position as Reader in Psychology in the University of London, and his extensive experience of war neuroses at Craiglockhart and at the front are sufficient to ensure a respectful hearing for anything he may have to say on the relation between psychological theory and its practical application in therapeutics.

His book is divided into five parts. The first deals mainly with “disassociation” which is discussed in the light of the views of Janet, Morton Prince, Freud and Jung. The second is concerned with theoretical considerations, notably with Freud’s theory of dreams and of the unconscious, with emotion, with instinct and the sexual impulse. The third is devoted to psychological factors in psychotherapy and contains the essence of the author’s personal contribution to the subject. The fourth part describes various examples of the psychoneuroses of war, and the fifth consists of a chapter on the relation of mind to brain with some notes on Psychical Research.

The foregoing should suffice to show that the book deals with a great variety of interesting matter, but the present writer must confess that, apart from this general interest, he found it somewhat disappointing. The author’s aim is “to show the psychological principles underlying the modern theory and practice of psychotherapy,” and it is quite certain

that it is very necessary that this should be done in a more convincing fashion than has hitherto been achieved. We urgently need an exposition of the subject which shall bring the *ad hoc* terminology and conceptions of the Freudian and similar schools into line with established psychological doctrines. But in order to do this it is necessary to have a coherent and unified view of mental processes in general of which the psychoneuroses shall appear as no more than a special class of instances.

One looks in vain for such a coherent view in Dr. Brown's book. The author seems too content to deal in isolated phenomena such as Abreaction, Dissociation, Emotional Revival, Suggestion and so forth, and does not attempt to unify the processes which lead to pathological states with those which lead to their cure by exhibiting them as special instances of a general process in which the organism reacts, in accordance with unchanging laws, to different environments.

Too little stress is laid on the essential characteristic of all pathogenic situations, the feature, that is to say, of *conflict* between incompatible reactions excited by different elements in the total situations—between the morale of the soldier, for instance, and the self-preserving instincts of the animal organism. It is this conflict which results in the adoption of a compromise form of reaction which constitutes the psychoneurosis.

One suspects, also, that the curative process of Abreaction, Emotional Revival or Psycho-catharsis, to which Dr. Brown attaches great value, is not really to be explained so simply as is indicated by saying that "the bottled up emotion is worked off" under hypnosis or the like. "Bottling up" an emotion is a very convenient and suggestive metaphor but, like all metaphors, needs careful handling when invoked to supply an explanation.

Again, Autognosis—the acquisition by the patient of a knowledge of his own motivating tendencies, etc.—is not really different from the process which is commonly recognised as being responsible for the curative efficiency of psychoanalytic treatment. The value of the latter consists essentially in the bringing to consciousness of experiences and tendencies which were previously repressed and thus rendering valueless the compromise reactions (symptoms) determined by their repression. "Autognosis" may be a good label for this process, but its nature is insufficiently brought out. Similarly Re-association, another member of Dr. Brown's quartet of curative factors, is a logical corollary of autognosis and would clearly appear to be so if the process of dissociation were more thoroughly considered in its proper light as a specially extensive case of repression under the influence of conflict.

The personal influence of the physician, Dr. Brown's fourth factor, should also have been brought into line by showing that it, and it alone, is responsible for the overcoming of the 'resistances' obstructing the psychoanalytic process which aims at the abolishing of repression (autognosis).

It must not, however, be inferred from the preceding criticism that Dr. Brown's book is not one which may, and should, be read with profit by all who are interested in this subject. The author has experience and independence, which is more than can be said of some writers, and it is only by the co-ordination of well-founded, if divergent, views that we can hope to escape from the tyranny of dogmatic extremists and arrive at well-balanced opinions concerning the problems involved.

W. WHATELY SMITH.

Introduction à la Psychologie: L'instinct et l'émotion. By J. LARGUIER
DES BANCEL. Paris: Payot. Pp. 286.

The scope and point of view of this work are indicated with sufficient clearness by the chapter headings: *L'objet et les méthodes de la psychologie, L'âme et le corps, La conscience et le système nerveux, La moelle et le cerveau, L'activité réflexe et l'activité cérébrale, L'instinct, L'émotion.* It is what it professes to be—an introduction to psychology, and from the functional and biological point of view. The various topics are necessarily treated in a general way, general results, rather than details, of recent experimental investigations being cited and interpreted. The result is a book, admirably clear, and on the whole satisfactory as far as it goes, but leaving the impression which is too often left by such books, that we rarely get to grips with the real psychological problems. To some extent an exception must be made with respect to the last two chapters, and more particularly the last. These two chapters, in which are discussed the problems of instinct and of emotion, constitute the really valuable portion of the book.

The first of these chapters is devoted to instinct. It begins with an attempt to define instinctive activity and to work out its relation to habit on the one hand, and to reflex activity on the other. With regard to habit there is no difficulty; habitual actions are acquired, instinctive innate. Instinctive actions are "actes adaptés, que tous les représentants d'une espèce accomplissent de même sans les avoir appris". What then of the reflex? The author's thesis is that the reflex constitutes the type of instinctive actions. The reflex is nothing but an elementary instinct, and every instinct can be regarded as a system of reflexes. Of course this is the characteristic behaviourist conclusion. But is it true? And is it a conclusion inevitable to a behaviourist standpoint? A negative answer may be given to both questions. In instinctive activity the whole vital system appears to be involved. There is thus an 'integration' which is by no means essential to the reflex as such, nor to any system of reflexes so long as it remains merely a system of reflexes. The point has not escaped the author, but he appears to have missed its significance.

The course of thought pursued in the rest of the chapter is somewhat curious, and the logical connexions are not too obvious. The author goes on to discuss the 'decay' of instincts. Then he takes up the 'genesis' of instincts, and thereafter discusses 'fears primitive and derived,' attempts an analysis of 'sentiments,' and ends with a classification of human instincts. Some of the views put forward are highly controversial, but a detailed criticism need not be attempted here. It should however be noted, that in spite of the work of Freud, though not ignoring it, he reiterates James's teaching regarding the decay of instincts, that he apparently does not know Shand's work, and that the following classification of human instincts is given: *Les instincts alimentaires, Les instincts de défense, La curiosité, L'instinct sexuel, Les instincts parentaires, Les instincts sociaux, Les instincts égoïstes, Le jeu.*

The chapter on emotion is the most important in the book. M. Larguier des Bancel rejects McDougall's view that emotion is merely the inner aspect, or an essential constituent, of instinct. According to his view it is rather a substitute, the necessity for which arises from the failure of instinct. Or it is a 'disorder' of instinct. Of course this view is not a new one, if it is merely equivalent to regarding all emotion as pathological. But taken in this narrow sense the view is untenable, and the real interest of M. Larguier des Bancel's discussion lies in the attempt to work out a psychology of emotion which will include what is essential and valuable in the theories of James, Ribot, and McDougall without abandoning the older

theory. There is much to be said for such an attempt, but to describe emotions as 'disorders,' or to characterize them as pathological creates more difficulties than it solves.

Passing to the psychological nature of emotion, the author distinguishes between the mechanism and the consciousness of the emotion. This inevitably leads him to the James-Lange theory which he strenuously defends. Here again it is a pity that the author is apparently unacquainted with recent work on the subject, notably Shand's. A consistent psychology of instinct and emotion can doubtless be developed along the general lines followed, but it must include what is sound in the work of James, McDougall, Shand, Freud, and Rivers. Of such a psychology we are here presented with little more than fragmentary outlines. In spite of this the chapter on emotion has considerable interest and value.

As an introduction to psychology the book as a whole, in spite of the points criticised, must be pronounced excellent.

JAMES DREVER.

Psyche's Lamp: A Revaluation of Psychological Principles as Foundation of all Thought. By ROBERT BRIFFAULT. George Allen & Unwin Ltd., London, 1921. Pp. 240.

This is not so original a book as its author seems to suppose, nor are its conclusions likely to call forth such a chorus of indignation as he anticipates. In a postscript—thoughtfully provided as "first aid to critics"—Mr. Briffault announces that the conclusions to which his arguments have led "are a challenge to the most fundamental of all notions, to the foundation of all past and current thought and evaluations of life's values, the notion of individuality, the *sum* that was once regarded as the one solid rock of certainty amid a universe of uncertainties," and he adds in the next sentence "Berkeley dissolved the 'external world' of the thinker; I call in question the existence of the thinker himself" (p. 238). Has Mr. Briffault forgotten Hume, not to mention William James and the latest exponents of Behaviourism?

It is true that Mr. Briffault's method of attack is quite different from Hume's and owes not a little to modern psychology and biology of which he has an extensive knowledge. He differs also from Hume in having a pronounced ethical purpose which gives added charm to a naturally flowing style. Mr. Briffault is convinced that "the concept of individuality has plunged the world into despair from which it could be saved were we but persuaded of the continuity and impersonal unity of all the forces that represent the substance of being" (p. 240). He thus sets out to expose the "illusion of individuality" which reached its climax in the *cogito* of Descartes. Because our cognitive consciousness does not reach beyond the cycle of what we call 'our individual life,' we suppose that in thought we find the foundation of the *sum*. But, as Hume pointed out, there is much that we do not remember even in that which we call distinctively "ours"; hence, lapse of memory does not suffice to establish discontinuity of the individual. There is, then, no warrant for the conclusion that the discontinuity of cognitive experience constitutes the line of demarcation between the individual and the "continuity of life". This argument is reinforced by the consideration that much of our mental attitude is the result of the unconscious workings of mind that is continuous in the race; from which, again, it follows that cognition is not the essence of mind and, therefore, cannot be the principle of its differentiation. This seems to me both true and important, and Mr. Briffault is only mistaken in supposing that it is revolutionary and, further, that it is capable of supplying the key to all problems.

The book is interestingly written and is easy reading. It is obvious that the author considers the ethical applications of his theory to be of great significance, and questions of evaluation constantly recur. Space permits us to touch on two problems only. Chap. VII. is devoted to the discussion of "freedom" about which some interesting things are said. Mr. Briffault points out first that the problem largely arises from a failure to recognise that the causality of mental process is nothing but "the control which an idea exercises over thought and action" (p. 170), and it is just this relation of control that constitutes freedom. Secondly, he argues that all necessity is logical, and results only from the lameness of our intellect which forces us to demonstrate the obvious. Thus the scientific determinism that would construct the universe given the data is but the elaboration of a tautology. Hence no consequence of any importance follows. Mr. Briffault concludes that our dynamics is inapplicable to the universe. So, too, is our psychology and the conception of purpose; with the rejection of the latter our ethical values cease to have meaning in reference to the whole of things. Yet, in his summing up, Mr. Briffault falls into inconsistencies and speaks of the universe as *punishing* sins against the laws of Life, and he even concludes with the exhortation *to trust* the universe that we do not need to cognise.

So, after all, value returns and we judge the universe of which we are but a fragment.

L. S. S.

Dual Evolution. Being outlines in a theory which is thought to reconcile Idealism and Realism from the viewpoint of Humanism. By J. O'CALLAGHAN. London: G. Bell & Sons, Ltd., 1921. Pp. viii, 259. Price 12s. net.

Mr. O'Callaghan claims to keep a tight hold of actuality, and will not allow himself to be led astray into the excesses of either an absolute monism or an intellectualist mechanism. As part of his vision of the actual world he has three irreducibles; a world of matter outside of and indifferent to selves; selves behind and owning those activities we call consciousness; and consciousness, the system of activities by which the self passes from potentiality to actuality. Matter is essentially sensation, and possesses extensity and duration, which are real where abstract space and time are unreal. Sensation which is matter and sensation which is in consciousness seem to be two different things, though they are both essentially movements.

There is much of which we are not clear, though the fault is perhaps not Mr. O'Callaghan's. After his modest sub-title, he makes amends by being sufficiently assertive throughout his book. The book has attractive and repellent aspects. There is no index. There is an annoying use of adjectives as nouns (irreducibles, perceptibles, apprehendibles, distinguishables, recognisables and expressibles, etc.); an exuberant flow of language too often where terseness would prove welcome; a hearty disdain for the mechanical philosophers: but it is all in the interests of concreteness, vividness, actuality (his chief friends are "particularities," his main enemy an "epiphenomenon"); and he has learned so many excellent things from such excellent masters (among whom may be noted Croce and Bergson) that it is a pity from a philosophical point of view that he let his imagination run riot instead of bowing to the rigour of a decent logic. Among other marvels, he speaks of the origin of life (108-109), and this is an essential part of his theory; of the relation of the parent "selves" (as distinct from their "bodies") to the offspring "selves" (120-122); of the significance of the differentiation of male and female (224); and, in

matters psychological, of the experience of pure sensation (69), the key to consciousness (72), the possibility of moments of unchanging duration in the inner core of the self (88).

With all this, there is an essential rightness of vision, however much imagination may range; and in these days when the ordinary reader wants something definite for his comfort, the ordinary reader will find in Mr. O'Callaghan much instruction on the right lines, as well as comfort.

The main thesis of the book is that the mechanical world is the deliberate creation of a personal God; that it is only an approximation to an ideal mechanism, and so implies a beginning and perhaps an end; that into this world, after it had evolved to a sufficient complexity, God introduced potentialities (selves), which then passed through an evolution of a different sort in the achieving of actuality. The one evolution is material, and consists only of re-arrangements of matter; the other evolution is historical, and is essentially a creation of newness through a free struggle against material obstacles (which may and often does end in failure). This second evolution was necessary because God wished to create, not creatures, but children. Thus Mr. O'Callaghan is a theological vitalist.

Bodies are the servants, not a part, of selves; and memories, conscious activities of all sorts, belong to selves apart from bodies, and thus, after evolving, a self can persist after it has thrown aside its body, in precisely the same state as it was in when it had a body. The philosopher who is groping with difficulties may envy Mr. O'Callaghan his whole-hearted belief in his views. And Mr. O'Callaghan, in turn, may look in pity on the timidity of the philosopher who will not believe what might so easily be true. But the philosopher who has set himself his task must stick to it, and pursue his laborious way.

L. J. RUSSELL.

Il Metodo di Insegnamento nelle Scuole Elementari d' Italia. ARISTIDE GABELLI. Prefazione di E. Codignola. Pp. 64. Firenze, 1921. Lire 2.

La Libertà d' Insegnamento. BERTRANDO SPAVENTA. Una Polemica di settant' anni fa con introduzione, Appendice e Note di Giovanni Gentile. Pp. 185. Lire 6.

Introduzione alla Pedagogia. M. CASOTTI. Pp. 103. Firenze, 1921. Lire 3.50.

(Publications in the Educational Series *La Nostra Scuola*. Edited by E. CODIGNOLA, Vallecchi Editore, Firenze.)

These little books come opportunely to-day, when the Minister of Education in Italy is Benedetto Croce, the brilliant leader of the philosophical school in sympathy with which they are written. Only the third deals directly with the philosophy of education; but the two others have a considerable indirect interest for students of philosophy.

Gabelli, we are told in the preface to *Il Metodo*, was one of the Italian positivists, whose work survives the death of his school through his subtle and concrete feeling of educational values. The present brochure is a paper offered by him to the educational congress at Rome in 1880, and is the first instalment of a projected reprint of his whole works. It is a demand for a reform of elementary education inspired by Froebel, pretty much as Fichte's *Reden*, which he has in mind, were inspired by Pestalozzi. The turn he gives to his positivism converts it, I think, into a desirable educational realism.

The tract on "Freedom of Teaching," of which the nucleus is Spaventa's articles in the democratic journal *Progresso* in the autumn of 1851, seems

to me of extraordinary historical interest, containing as it does in Gentile's long introduction much detailed citation from Cavour's letters and speeches, and in the appendix the speeches, etc., with which Spaventa was in controversy, and has also a somewhat curious philosophical moral for anyone interested in political freedom and the idea of a collective will. The point was that the cry for "freedom of teaching" was utilised in defence of the *status quo*—in which the clergy monopolised the schools—and against the establishment of a national system of the state. Thinkers like Spaventa, whose thunder was thus stolen, had to draw distinctions, and give a pregnant meaning to 'freedom,' and were more or less brought into conflict with their own side. Gentile's point is to show that the Liberals were substantially agreed in favour of a state system, though once at least Cavour in debate refused to tamper with the plain watchword 'Freedom of teaching'. Competing schools, outside the state system, were to be permitted, but were not expected to be successful in many cases.

Mario Casotti is a follower of Croce and Gentile, and his *Introduzione*, (which, he insists, is really an introduction, and not a complete manual) follows, as it seems to me, pretty much the lines of Gentile's *Sommario di Pedagogia*. It is a fresh and spirited defence of this position, and the reader ought to bear in mind the statement in the preface just referred to, if he feels, as I confess that to some extent I feel, that the Pedagogics are used to throw light on the philosophy rather than *vice versa*. The real interest is the double contention of the philosophy in question, that the universe is creative and progressive, and is identical with the thinking ego. It is thus understood that philosophy is one with Pedagogics. The view of education thus introduced is liberal and full of life. I will venture just to indicate what seems to me like a weakness in it, due to the philosophy to which it is akin.

Following, as I suppose, Gentile's distinction of 'autodidattica' and 'eterodidattica,' Casotti employs a distinction between 'autoeducazione' and 'eteroeducazione' the main and ultimate meaning of which is that all education resolves into 'autoeducazione'; that is to say into the creative development of the pupil's own mind; though it is recognised as in a striking chapter of Gentile's *Sommario*, *Il vero maestro*—that the universe takes part in this self-education. Now though this is acknowledged by both writers, and an attitude of gratitude and reverence to the world, social and other, which helps to educate us, is demanded by Gentile, and even something more, "a religious adhesion and submission to reality" is desiderated by Casotti,¹ yet I cannot help thinking that the identification of the "I" and the universe is very far too facile and that the objectivity and greatness of things, and all we have to learn from them, is unduly minimised in the educational theory, as the relation of objective reality to thought and thinking is misconceived in the philosophy. Compared with Plato and Aristotle, with their insight into life, and their concrete inspiration drawn from the detailed forms and modes in which the universe communicates to man his own nature, I confess that this modern doctrine, though large and spiritual in its intention, seems to me extraordinarily thin and phantasmal.

BERNARD BOSANQUET.

¹ P. 99. This almost suffices to constitute a philosophical advance upon Gentile's attitude, I should say.

L'Évolution Psychologique et la Littérature en Angleterre (1660-1914).
PAR L. CAZAMIAN. Paris: Félix Alcan, 1920. Pp. 268.

The subject of this short, clearly written and interesting book is not, as the author himself fully recognises, capable of precise treatment. The influences determining the changes in the general character of a literature are too many, and the changes themselves too difficult to estimate, for this to be otherwise.

M. Cazamian endeavours to simplify his undertaking by the use of two explanatory hypotheses. First, he supposes a natural alternation to occur between two tendencies in the mind, the tendency to emotional and the tendency to intellectual satisfaction. In other words an alternation between Romanticism and Classicism, terms which are here used in a more careful and explicit fashion than is usual. Secondly, he uses the familiar sociological principle of the importance of the *milieu* as controlling this natural alternation. By far the greater part and probably the more valuable part of his book is concerned with the effects, traced in some detail, of social changes upon literary history. The first, the psychological principle of explanation is, however, of most interest philosophically.

M. Cazamian finds in the last three centuries of English literature five distinct phases: Elizabethan Romanticism, the Augustan age, the Romantic Revival, a second Classicism of the age of Tennyson and Matthew Arnold, and a final Romanticism at the end of the century. The rapidity of alternation increases in so marked a fashion as to suggest that to-day the rhythm may have broken down, the two phases being no longer distinguishable. The indispensable condition for a general change of phase he finds in the wearing out of satisfactions, a fresh tendency arising only when the opposed tendency has been overstimulated and æsthetic sensitiveness in that direction dulled. The question as to the nature of this wearing out, especially puzzling in view of the great differences in persistence of appeal between different works, is not discussed closely, in fact all the psychological parts of the book are merely adumbrated from a distance. Both this problem and the general psychological problem of the relation of emotional to intellectual satisfactions,—the antithesis is more popular with men of letters than with psychologists,—require clarification if M. Cazamian's argument is not to remain unduly vague. A further cause of elusiveness is the occasional use of the hypothesis of collective consciousness with the perhaps unavoidable failure of actuality which this method of exposition so often brings. When we are told (p. 219) '*le génie anglais retourne à une certaine attitude intellectuelle et artistique qui ne lui est pas inconnue, et avec laquelle ses souvenirs subconscients sont déjà familiers,*' it is a little difficult to be sure what is being said.

These problems, however, will vex only a few of M. Cazamian's readers and these only at a few pages. The bulk of the book deals freshly and informatively with the social factors in the history of our literature. There are in addition many very apt appreciations and criticisms. A few are disputable: the denial to Sterne of anti-classical rebelliousness (p. 114) and the slightly too 'continental' appraisal of Byron are instances: but the distinctively critical parts of the book have the scholarship and the fine quality which we have learned to expect from French writers.

I. A. RICHARDS

"*Gnade und Freiheit.*" *Untersuchungen zum Problem des Schöpferischen Willens in Religion und Ethik.* By FELIX WELTSCH. München: Kurt Wolff, 1920. Pp. 155.

This is a live and stimulating work, with many points of suggestive character in the course of its discussions.

The opening chapter deals with "Faith as Trust-Decision" or determination. Faith is resolved into the two elements of trust and decision. The whole life of man is held to consist of these determinations of faith. The chapter thus becomes a panegyric on faith, with particular emphasis on its influence in the sphere of religion. But when you carry one principle of man's complex nature to a height of extreme and overshadowing importance, some lack of balance and harmony is sure to result. Faith assumes a somewhat arbitrary and irrational character, and appears grounded in mere will to believe. But the philosophy of faith does not sanction such an attitude. True faith is always grounded in reason. The author runs everything back into Anselm's *credo ut intelligam*. But this is clearly inadequate. For if you urge *crede ut intelligas* as a principle, it must, in the mutual commerce of faith and reason, be supplemented by the principle *intellige ut credas*. Herr Welt'sch's fundamental position is, that we must trust the universe. But he makes this no result of observational and reflective processes, but of a free decision. Such an unmotivated trust seems unsatisfactory. We are to trust the Whole, to account the universe as of absolute value, for no other apparent reason than that such trust is the law of our whole life. But if it is not irrational to believe that the world has a meaning for us, our faith in the universe must yet have grounds. Its value depends upon these grounds.

"Life and Unity" form the theme of the second chapter. The author takes all development of spirit to consist of a double wave-movement—a wave of unity and a wave of life. The deepest striving of spirit is the desire of unity. Over against the ego stands an immense manifoldness. Life's most essential quality is unity; chaos is overcome only as life finds unity, or creates it. There are complexes, whose unified character is not destroyed by their having parts. Such a unity is a whole. Such a whole is the world. While this whole is grasped, the parts are jointly apprehended, and the wish of the spirit is satisfied, as the manifoldness is seized in a unified act. The unity of philosophic system, it is contended, arises in this way. Life, as signifying the whole of experience, is the object of our unified activity. Life and unity are the two poles of being, and are in bitter conflict. For we have no sooner created a unity than a new wave of experience destroys this unity like a house of cards thrown into a heap. Rationalism, optimism, pessimism, grace, are then discussed.

Chapter the third treats of "Vitality and Spirit". Vitality is life-force; a secret impulse, which is part of Nature-Becoming. The three great elements of spirit are, consciousness, unity, freedom. Between these two original principles, vitality and spirit, a truly tragic relation reigns: they can neither live with, nor without, each other. Spirit appears to rise out of vitality, but as by a leap or spring. What is of spirit breaks out of Nature, yet it represents something quite new—a fresh start rather than a continuation. Spirit is scarcely born, when it turns against Nature. It rends the connexion, and will be free. From these initial positions, the author works out his interesting chapter, with references to activists, realists, romanticists, etc., and to the doctrines of grace and freedom. It is significant that James is the only non-German philosopher referred to throughout the work, except Bergson.

"Freedom and Necessity," "Grace and Freedom," are the titles of chapters four and five respectively. No attempt is made to deal with the

whole freewill problem, but only with so much of the theme of grace and freedom as is connected with the question of the creative in will. The concept of creative freedom is defined, discussed, and supported. But the argumentation does not contain anything very new. For the development of the concept of grace we are referred to the history of Christian dogmatics, but are told that in no dogmatic is the concept of religious freedom presented in a pure upbuilding and secure denomination. It is always left in the very negative position of a mere opposer of grace. Such is the imperfection, the inner paradox of grace. But I do not think the antithesis which the author seeks to establish between grace and freedom can be sustained. We are not entitled to regard as in its operations unpsychological, nor to view grace as doing violence to freedom, which in fact it implies or involves. The acceptance of grace is just one of those free acts which the author delights to emphasise.

The sixth and last chapter deals with "Creative Freedom as Religious Principle". There is some interesting discussion of being and reality—a subject which has everywhere received a good deal of recent attention. Reality is said to be the first, the source, the gate of our experience, while being is the result of an act of judgment. "We live in reality and reality lives in us." Reality is thus the first, pre-logical matter of our experience. "Being has no intensity," says the author; intensity is through becoming. Absolute Being is the ideal or final aim of Becoming, which this latter can never reach. But the author appears to me hardly critical enough of what is involved in a theory of Becoming, although there is a good deal of soundness in many of his contentions. Absolute Being is to the believer in grace, he says, a ready-made reality value; to the believer in freedom, it is the ideal, or a value to be realised. To the former, it is reality; to the latter, it is end and aim. The discussion is then continued on historical lines.

JAMES LINDSAY.

The Psychology of Conviction. By JOSEPH JASTROW. Houghton Mifflin Company. Pp. xvii, 387. \$2.50.

This is a collection of essays of a popular type most of which have appeared in monthly journals and reviews, though all have been revised and some rewritten with a view to giving more unity to the series. Only a small minority of the essays deal directly with the subject indicated in the title of the book, but there are many points elsewhere which have a bearing on the topic, though they deal with such varied subjects as "Fact and Fable in Animal Psychology," "The Antecedents of the study of Character and Temperament," "Malicious Animal Magnetism" (Mrs. Eddy's "personal delusion"), "The Psychology of Indulgence: Alcohol and Tobacco," "The Feminine Mind" and "Militarism and Pacifism". As to the main topic, the author seems sound so far as he goes. He does not carry us very deep into the fundamentals of psychology; but perhaps one should not ask that of a collection of popular essays. The essay on the "Democratic Suspicion of Education" is not very convincing, but then to an Englishman it does not seem a real "live" subject—he could say more on the aristocratic suspicion of democratic education. The essay on the feminine mind has some good common sense in it, especially about the lack of finality of judgments, based on mental tests, as to the comparative capacity of the sexes. "Men and women," writes Prof. Jastrow, "do equally well (or equally badly) in college, because their doing well or not depends on qualities too irregularly related with their most significant strengths and weaknesses. The records of what intellectually specialised men and intellectually

specialised women do with their minds, when released from academic discipline, is a far more significant criterion. In professional pursuits, the supporting, congenially masculine qualities, combining with the special intellectual grasp, may account largely for the overwhelming prominence of men's names in general biographical dictionaries and in those of the specialities."

C. W. V.

The Psychology of Industry. By JAMES DREVER, M.A., B.Sc., D.Phil. Methuen, 1921. Pp. xi, 148.

This is a popular account of the questions that have, within recent years, come to be considered as 'industrial psychology'. The reviewer is of the opinion that enough popular accounts of this subject had already appeared, and that what was required was research. But if another popular book had to be written, it should, to be valuable, have attempted a more critical survey of the subject than is given in earlier books. Unfortunately, Dr. Drever seems to have written his book very hastily, and to have approached his sources very uncritically, with the result that, among many sensible comments, the errors of earlier popularisers occur, sometimes in exaggerated form. In discussing Taylor's pig-iron case, for instance, he states that the men were made to work for 7 minutes and then to rest for 10 (p. 74); though the actual work and rest periods were *either* (according to the size of the load) about 9 minutes and $1\frac{1}{2}$ minutes respectively, or about $4\frac{1}{2}$ minutes and $\frac{2}{3}$ of a minute (as will be clear if calculations are made from the data given in the note to pp. 60-61 of Taylor's *Principles of Scientific Management*, 1913 edn.). Again, the bicycle-ball case is given in its ordinary form, as selection of workers made on the basis of reaction-time; though in fact no reaction-time test was here used (as may be inferred by comparing the account of the case given by Taylor in *Shop Management* with that in his *Principles of Scientific Management*: the latter account is inexcusably misleading). To take another feature: the various references given throughout the book seem often to be arbitrary, and are not nearly so useful as they might be, second or third hand accounts being sometimes referred to, for no apparent reason, instead of originals. Thus, the reference (p. 76) for the handkerchief-folding case is Hollingworth and Poffenberger's *Applied Psychology*, p. 151. But the account of the case given by these authors is meagre in the extreme, while two other books in Dr. Drever's bibliography (pp. 153-155) describe it in detail, and one of these, F. B. and L. M. Gilbreth's *Fatigue Study* (pp. 127-131) gives the original account of it. Further, the arguments in certain parts of the book seem to show defects due to haste. The reviewer can make little or nothing of two of the four reasons given (pp. 93-94) to explain why bad lighting has a detrimental effect upon the efficiency of work. The first reason given (p. 93) is practically identical with the second (p. 94), while the third and the fourth (p. 94) seem to have nothing whatever to do with the matter.

The discussions are generally developed in an interesting way, and the book will give a good general idea of industrial psychology to anyone who knows nothing about it.

B. M.

Psycho-analysis and the War Neuroses. By Drs. FERENCZI, K. ABRAHAM, E. SIMMEL, and E. JONES. Introduction by Prof. S. FREUD. The International Psycho-analytical Press, 1921. Pp. 59.

This, the second volume of the International Psycho-analytical Library series, consists of four short but instructive papers on the bearing of

psycho-analysis on the war neuroses. After establishing the psychogenetic origin of the symptoms, the main point insisted on is that the investigation of the war neuroses, though it has not shown the sexual theory to be correct, does not show that the sexual theory is incorrect. An attempt is made by Ferenczi and Abraham to show that it applies in that the trauma brings about a regression to the stage of narcissism—they do not explain, however, why so many of the neuroses are not of the narcissistic type, and Ferenczi's argument that because sexual impotency often results, therefore there must be a sexual background for the neuroses, sounds rather like stating that because a man loses his appetite for food as one of his symptoms, that therefore his disordered digestion is the cause of his neurosis. The most valuable paper is that by Ernest Jones, who gives a very clear précis of the present position of psycho-analysis—he holds that the sexual question in relation to the war neuroses is simply *sub judice* and must await further investigation, and he raises a very important point as to whether a current wish, however strong, that is only half conscious and sometimes fully conscious can ever in itself produce a neurosis. Most of us, who have had experience of war neuroses in this country, would not agree with Freud who tells us in his introduction that most of the neurotic diseases brought about by the war disappeared on the cessation of the war conditions or with the fact that the "neuroses could not occur in professional soldiers". Referring to the sexual etiology of the war neuroses, he suggests that "with an impartial attitude and some willingness it should not be difficult to find the way to further elucidation". It would seem simpler for him to make his exclusively sexual theory irresistible and to do away with the need for willingness, for to many of us, with our knowledge gained by the war of the significance of the instinct of self-preservation, the wholesale attribution of all neuroses to sexuality is comparable to the attribution of all bacterial infections to the same bacillus, though we have no repugnance to sexuality and recognise its importance in the peace neuroses.

E. PRIDEAUX.

Mysticism, Freudianism and Scientific Psychology. BY KNIGHT DUNLAP, Professor of Experimental Psychology in the Johns Hopkins University, Baltimore. St. Louis: C. V. Mosby Company, 1920. Pp. 173.

It would convey the purport of this book better if we turned its title round and called it "*Mysticism, etc., versus Scientific Psychology*". It is an effort to take a stand upon certain principles of psychological science, and from that vantage ground evaluate a number of interesting contemporary currents of psychological, religious and philosophical thought. The attitude taken up towards all of these is critical; and with the doubtful exception of mysticism (which is differentiated into a genuine and a "pseudo" variety) the attitude to all is also antagonistic. There is a good deal of information in the book of an elementary kind. Copious extracts are given from the writings of the mystical and the psycho-analytic writers. Some historical setting is given to the former. And some facts are recorded regarding the publications of the latter. The author's own position is described as psycho-biology (p. 122) and it is distinguished from the standpoint called "behaviourism," which appears to the author to merge psychology wholly into something un-psychological. The book provides a guide through part of a very deep thicket in modern thought and writing, a guide which is "clear" provided you look for nothing more in it than the clearness of a guide book. But we fear that neither psycho-analysis nor mysticism, whatever may be said of the other subjects passed in review, is treated sufficiently from the inside, to accomplish in any deep way its design, namely, the "enlightenment of the

public" concerning the "real nature" of that "siren trinity," which the author designates "spiritualism, philosophical mysticism, and the newer psychology of Freud and his satellites".

J. W. S.

The Works of Aristotle, translated into English under the editorship of W. D. ROSS, M.A. Vol. x.: *Politics*, by BENJAMIN JOWETT; *Oeconomica*, by E. S. FORSTER; *Atheniensium Respublica*, by Sir F. G. KENYON. Oxford: Clarendon Press, 1921. Pp. xvi (text and index unpagged).

Of the contents of this new volume of the Oxford English Aristotle, the principal item, the version of the *Politics*, is, in the main, the familiar one of Jowett, revised by Mr. W. D. Ross with the aid of O. Immisch's valuable recent Greek text. Neither the notable merits nor the occasional demerits of Jowett's translation call for comment in a notice like the present. The full value of Mr. Ross's work on the text could only be treated by going over the Greek with his translation line by line, but I am glad to see that while he has, of course, profited by Immisch's recension, he has judiciously refused to follow some of that scholar's rather unnecessary deviations from well-attested readings which yield excellent sense. (I note that in most of the cases where I had myself recorded dissatisfaction with these innovations in my copy of Immisch's edition, Mr. Ross has reverted to the MSS.)

In Mr. Forster's translation of the *Oeconomica* (no very easy task owing to the state of the text of *Oeconomica* B), I note one curious slip. Aristotle—or rather the unknown author of the tract called *Oeconomica* A—says at 1345 a 30, that a house should be cool in summer and sunny in winter. This will be secured, we are told, if the house is *κατάβορρος*, "looking down the north wind," i.e., if it has a south aspect. I cannot understand by what momentary aberration Mr. Forster turned this into a recommendation that a house, to be warm and get the sun in winter, should "face north". He should try living on the Scores in St. Andrews in January.

Sir F. G. Kenyon's Version of the essay on the Athenian Constitution is a careful revision of his formerly published translation. The revision was, of course, made necessary by the fact that the translation was first made from the tentative first recension of the text. Subsequent study of the papyrus, which is our sole authority for the Greek, has led to a considerable number of absolutely certain corrections. Unless another MS. should be discovered, the text of the essay is now as completely settled as it is ever likely to be. Sir F. G. Kenyon's name alone would be sufficient guarantee for the fidelity of the rendering. I cannot refrain from expressing admiration for its excellence as literature.

A. E. TAYLOR.

L'Estetica del Croce e la Crisi dell' Idealismo Moderno. By ANTONIO ALIOTTA. Naples: Perella, 1920. Pp. 173.

In Wildon Carr's *Philosophy of Croce* (p. 73) there is an account of the dilemma on the horns of which Aliotta believed he had successfully impaled Croce. The dilemma was that either hallucinations and hysterical emotions are artistic facts, and this is repugnant to our æsthetic sense; or else there is an immediate experience which is not æsthetic intuition. Croce, to quote Aliotta's words, "gagliardamente ed onestamente" defended himself, choosing without hesitation the first horn of the dilemma with all its paradoxical

consequences from the standpoint of common sense. Anyone who is interested in the duel can now read in this little book the original article written in 1904. It is followed by other criticisms of Croce, the latest dated 1917 and dealing with the *Storiografia*. The book brings out with great clearness two different approaches to the central problem of idealism, for the author though a relentless critic of Croce agrees with his idealism. According to Aliotta, Croce starts from a metaphysical presupposition of experience, whereas he, Aliotta, claims to start from common experience. The metaphysical presupposition is Croce's "Lo spirito non può uscire fuori di se stesso se non intuendo, formando, esprimendo". To the present reviewer on the other hand this seems self-evident truth of experience.

H. W. C.

Giordano Bruno e il Pensiero del Rinascimento. By GIOVANNI GENTILE, Florence, 1920. Pp. 293.

This volume contains seven papers, of which the first gives the title to the book: all except the seventh ("Humanism and the Renaissance"), have appeared previously in journals or pamphlets. The first three deal mainly with Bruno, the fourth with Campanella ("The idea of man in the Renaissance"), the fifth with Leonardo as a philosopher, and the sixth with Galileo. The general topic underlying all is the relation of philosophy to religion, and especially to "institutional religion". The papers show Gentile's admirable scholarship, lucidity, and fairness of mind. Perhaps his admiration for Bruno leads him to emphasise unduly the 'overworldliness' of the latter's philosophy. By it, for example, and by the resulting contrast between philosophy and practical life, he explains the partial adherence of Bruno at different times to the Genevan and Lutheran Confessions, his earlier submission to the Inquisition, and his final refusal and martyrdom, —when the question was one of the renunciation of his philosophy itself. It is improbable that the motive in each case was so fully conscious as this implies.

The papers contain many interesting new suggestions as to the historical origin and development of the conceptions of Nature, Man, and God in the Renaissance. There are to be completed by a further volume, "Researches in the Philosophy of the Renaissance".

J. L. M.

L'Unità del Pensiero Leopardiano. By PASQUALE GATTI. Naples. [Undated.] Pp. 106.

A strongly polemical essay directed against Prof. Gentile. In 1906 Mr. Gatti published a work on the philosophy of Leopardi in which he undertook to show that the great poet is proved by his posthumously published prose remains to have been equally great as a systematic philosophical thinker. This was denied by Gentile, who asserted that Leopardi was a poetic genius but not a systematic thinker at all. In 1917, however, Gentile himself published an essay strongly asserting the unity of Leopardi's thought but making no reference to the fact that Mr. Gatti had maintained the same thesis long before and had been ridiculed by Gentile for doing so. Of course MIND cannot enter into the merits of the controversy, though on the facts as he states them Mr. Gatti appears to have good *prima facie* grounds for a complaint, and it is not altogether creditable to the Italian press that he should have met the difficulty he tells us he has met in getting his protest published.

May the writer of these lines take this opportunity of remarking that he has no connexion with the editorship of *MIND*, and that Italian work for notice in these pages should be sent not to him but to the Editor in Cambridge?

A. E. TAYLOR.

Relativity, the Electron Theory, and Gravitation. By E. CUNNINGHAM. Longmans, Green, and Co. Pp. vii, 146.

This book contains an excellent introduction to the Theory of Relativity. It makes no use of very complicated mathematics, and yet is detailed enough to give the reader a really adequate idea of the grounds and consequences of the new views. In the last chapter a sketch is given of Weyl's extension of Einstein's conceptions. The work can be confidently recommended to those who want something more adequate than the numerous and bad elementary expositions with which the market has lately been flooded. It unfortunately contains a good many misprints in mathematical formulæ. Among these may be mentioned errors on pp. 30 (formula 2); 75 (where k/dt is printed for $|kdt|$); 74 (where $ict_1 - t_2$ appears for $ic(t_1 - t_2)$; and on p. 98.

C. D. B.

The Absolute Relations of Time and Space. By A. A. ROBB. Cambridge University Press. Pp. viii, 80.

In this little book Dr. Robb supplies a welcome synopsis of the argument in his larger *Theory of Time and Space*. A short appendix is added in which the author sketches a way in which he thinks that his theory might be applied to the problem of gravitation. It is to be hoped that the present book will lead many people to study Dr. Robb's chief work.

C. D. B.

The Training of Mind and Will. By W. TUDOR JONES, with a Foreword by ALEX. HILL, M.D. London: Williams & Norgate, 1920. Pp. vii, 70.

The Making of Personality. By W. TUDOR JONES. London: Williams & Norgate, 1920. Pp. vii, 72.

These two little books represent "the substance of innumerable lectures on Civics," delivered, under the auspices of the Y.M.C.A., to thousands of soldiers and sailors during, and after, the War. As such they may be taken to represent the fruits of a notable attempt to bring philosophy, in the shape of psychology and ethics, down from the clouds and into contact with the ordinary life of ordinary young men, which cannot but meet with the approval of all who think that if philosophy is good for anything it must benefit also moderate intelligences, and should not be content to remain a mystery reserved for the few. It is remarkable, and a valuable comment on the moral theories that endeavour to make the end super-individual and the State the core of morality, that Dr. Tudor Jones should throughout find it necessary to make his appeal through an ethic and psychology of self-development and self-realisation. There is little doubt that if moralists would only consent to bring their theories to the test of application, they

would learn not a little about the real meaning and value of their 'principles'.

F. C. S. S.

The Principles of Æsthetics. By DE WITT H. PARKER. Boston: Silver, Burdett & Co., 1920. Pp. 374.

It is becoming recognised that the term 'expression' is a danger signal in æsthetics. Mr. Parker, like so many others, is indebted to Croce for suggestions without which he would have written a better book; although, as again is usual, he accepts nothing whatever of the doctrines of the Italian writer. Defining art as 'expression, not of mere things or ideas, but of concrete experience with its values, and for its own sake' (p. 52), he yet makes no serious attempt to give a precise account of what this expression is. Such explanations as 'the putting forth of purpose, feeling, or thought into a sensuous medium, when they can be experienced again by the one who expresses himself and communicated to others' (p. 16) are plainly insufficient. In this avoidance of precision at an essential point Mr. Parker's exposition is no worse, however, than those of such well-known upholders of expressionist views as Mr. Carritt and Prof. Bosanquet.

The more interesting parts of the book are those in which points of psychological detail of importance to Criticism are discussed, notably in Chapter IV, where an approach is made to the little explored question 'of what kinds of elements are the things we speak of as *Hamlet* or the *Monna Lisa* composed?' In dealing with the more difficult questions as to the various structures of æsthetic experiences the author is less successful, as may be seen by his assertion, 'it is clearly necessary that the feeling tone of the form be identical with that of the content which the artist puts into it' (p. 98). Such dogmatism is far too readily admitted in this uncertain field.

I. A. RICHARDS.

L'Art et la Vie Sociale. By CH. LALO. Paris: Librairie Octave Doin, 1921. Pp. 373.

This essay which belongs to an imposing collection of manuals upon all subjects, the *Encyclopédie Scientifique* directed by Dr. Toulouse, deals in a very readable and often amusing manner with such subjects as the influence of family life, of class distinctions, of political régimes upon art at different times and in different societies. The author, who is well known as a populariser of opinions upon art, gives here a highly discursive treatment to these matters, and the value of his book lies rather in separate discussions than in any central position. He has much to say upon the economics of artistic production, and upon the causes of popular attitudes towards the arts. The range of topics covered includes the art of dress, and his analysis of the fluctuations of fashion throughout the war, as demanding always stuffs of which a scarcity was being felt, is a good instance of his method. It is pleasant to find the author quite clear as to the relations of Art to War. To the maxim, 'L'art est lié aux manifestations de la force,' he replies, (p. 278), 'soit; mais de quel lien? La santé aussi est "liée" à la maladie, ou la vie à la mort; l'opposition ou la négation est le seul rapport naturel de la guerre à l'art.'

I. A. R.

Received also :—

- Proceedings of the Aristotelian Society, New Series, Vol. XXI*, London, Williams & Norgate, 1921, pp. 246.
- W. S. Urquhart, *Pantheism and the Value of Life*, London, The Epworth Press, 1919, pp. 732.
- A. Carlini, *La Vita dello Spirito*, Florence, Vallecchi, 1921, pp. 228.
- H. Ruin, *Erlebnis und Wissen*, Helsingfors, Söderström & Co., 1921, pp. 303.
- W. Haas, *Die Psychische Dingwelt*, Bonn, F. Cohen, 1921, pp. viii, 216.
- G. Spiller, *A New System of Scientific Procedure*, London, Watts & Co., 1921, pp. ix, 441.
- H. Schmidt, *Relativity and the Universe*, authorised translation by K. Wichmann, London, Methuen & Co., Ltd., 1921, pp. xiii, 136.
- J. M. Keynes, *A Treatise on Probability*, London, Macmillan & Co., Ltd., 1921, pp. xi, 466.
- W. R. Matthews, *Studies in Christian Philosophy, being the Boyle Lectures*, 1920, London, Macmillan and Co., Ltd., 1921, pp. xiv, 231.
- D. Parodi, *Le Problème Moral et la Pensée Contemporaine*, Second Edition, Paris, F. Alcan, 1921, pp. 301.
- G. C. Field, *Moral Theory, An Introduction to Ethics*, London, Methuen & Co., Ltd., 1921, pp. x, 214.
- C. E. M. Joad, *Common-Sense Ethics*, London, Methuen & Co., Ltd., 1921, pp. xvi, 207.
- W. Stern, *Die Differentielle Psychologie in ihren methodischen Grundlagen*, Third Edition, Leipzig, J. A. Barth, 1921, pp. ix, 546.
- L. Bourguès et A. Denéréaz, *La Musique et la Vie Intérieure*, Paris, F. Alcan, 1921, pp. xi, 587.
- A. Tridon, *Psycho-analysis Sleep and Dreams*, London, Kegan Paul, Trench Trubner & Co., Ltd., pp. xiii, 161.
- G. H. Monrad-Krohn, *The Clinical Examination of the Nervous System*, London, H. K. Lewis & Co., Ltd., 1921, pp. xv, 135.
- R. Turro, *Les Origines des Représentations de l'Espace Tactile*, Paris, F. Alcan, 1920, pp. 43.
- A. Kolnai, *Psycho-analysis and Sociology*, translated by E. and C. Paul, London, G. Allen & Unwin, Ltd., 1921, pp. 185.
- W. G. H. Cook, *Insanity and Mental Deficiency in Relation to Legal Responsibility*, London, G. Routledge & Sons, Ltd., 1921, pp. xxiv, 192.
- J. Drever, *The Psychology of Everyday Life*, London, Methuen & Co., Ltd., 1921, pp. ix, 164.
- W. T. Stace, *A Critical History of Greek Philosophy*, London, Macmillan & Co., Ltd., 1920, pp. xiv, 386.
- A. B. Keith, *Indian Logic and Atomism*, Oxford, Clarendon Press, 1921, pp. 291.
- A. Guha, *Jivatman in the Brahma-Sutras*, University of Calcutta, 1921, pp. 230.
- A. del Vecchio-Veneziani, *La Vita e l'Opera di Angelo Camillo de Meis*, Bologna, N. Zanichelli, 1921, pp. viii, 333.
- C. D. di Aceadia, *Tommaso Campanella*, Florence, Vallecchi, 1921, pp. 305.
- Fénelon, *Écrits et Lettres Politiques* (Collection des Chefs-d'Œuvre Méconnus), Paris, Bossard, 1920, pp. 198.
- La Mettrie, *L'Homme Machine et L'Art de Jouir* (Collection des Chefs-d'Œuvre Méconnus), Paris, Bossard, 1921, pp. 217.

- Proudhon, *Du Principe Fédératif* (Collection des Chefs-d'Œuvre Mécon-
nus), Paris, Bossard, 1921, pp. 222.
- Scritti Vari in Occasione del Sesto Centenario di Dante*, Milan, Soc.
"Vita e Pensiero," 1921, pp. 192.
- T. Michelson, *The Owl Sacred Pack of the Fox Indians* (Bureau of
American Ethnology, Bulletin 72), Washington, Government
Printing Office, 1921, pp. 84.
- V. Branford, *Whitherward? Hell or Eutopia*, London, Williams &
Norgate, 1921, pp. xv, 116.
- M. Lecat, *Relations Intellectuelles avec les Centraux?* Louvain and
Brussels, M. Lecat, 1921, pp. viii, 128.
- Hall Caine, *The Master of Man*, London, W. Heinemann, 1921, pp. 432.

VII.—PHILOSOPHICAL PERIODICALS.

JOURNAL OF PHILOSOPHY. Vol. xviii., No. 3. **J. H. Leuba.** 'The Meaning of "Religion" and the Place of Mysticism in Religious Life.' [Mysticism is one type of religion, but does not exclude the others unless it becomes dominant.] **W. T. Bush.** 'Philosophy in France.' [Reviews D. Parodi on Contemporary Philosophy in France.] xviii., 4. **R. B. Perry.** 'A Behaviouristic View of Purpose.' ["A determining tendency is a general response-system, tentatively advancing towards completion, or tentatively renewing itself. Interested or purposive action is tentative action adopted because the anticipatory responses which it partially arouses coincide with the unfulfilled or implicit phase of such a determining tendency."] xviii., 5. **H. W. Schneider.** 'Instrumental Instrumentalism.' [Instrumentalism is a bad word, as suggesting "a philosophy which tries to get along without aims and ends". It really means, however, "insistence on the importance of teleological relationship". Its chief danger is to conceive itself too formally.] Report on 'The Oxford Congress of Philosophy,' by **W. P. Montague.** xviii., 6. **W. K. Wright.** 'McDougall's Social Psychology in the Light of Recent Discussion.' [Reviews the 14th edition of *Social Psychology* and discusses criticisms on it in general terms.] **H. H. Parkhurst.** 'The Twentieth Meeting of the American Philosophical Association.' xviii., 7. **R. B. Perry.** 'The Independent Variability of Purpose and Belief.' [Traced in the cases of fixed belief + varying purpose, variable belief + fixed purpose, converse relation of purpose and belief, and of interest and belief.] **B. Ruml.** 'Reconstruction in Mental Tests.' [A warning against exclusive interest in applicable results.] **J. R. Kantor.** The 29th Annual Meeting of the American Psychological Association. [Severely critical.] xviii., 8. **A. P. Brogan.** 'Urban's Axiological System.' [Criticism based on the contention that the fundamental value category is not 'ought' but 'better-than'.] **J. E. Turner.** 'Some Philosophic Aspects of Scientific Relativity.' xviii., 9. **S. P. Lamprecht.** 'Some Political Implications of Ethical Pluralism.' [Continues article in xvii., 21. "Since goods are plural, since no selection of goods is authoritative, since many personal choices can legitimately be made, since antagonism and discord are recurrent and certain, therefore the requirements of the moral life demand the greatest possible harmonisation of rival programmes of action. On the one hand, no single principle of eternal justice is possible; on the other, mere force cannot create right. . . . Compromise is the sole alternative to violence as a means of achieving human excellence. . . . But force . . . may be exercised by a sovereignty, that is, by a power sufficient to compel a peaceful compromise. . . . Where no sovereignty exists, its creation is the first step to the common good," and it is "an overwhelmingly important practical problem" whether a world-wide sovereignty can be erected before civilisation crashes.] **T. de Laguna.** 'The Complex Dilemma.' [Denies its validity.] xviii., 10. **J. R. Kantor.** 'A Tentative Analysis of the Primary Data of Psychology.' [On behaviourist lines: hopes to

"exclude from psychology all animistic prepossession and unscientific description".] **W. R. Wells.** 'Is Supernaturalistic Belief essential in a Definition of Religion?' [Concludes that it is, but does not define 'supernaturalism'.]

PHILOSOPHICAL REVIEW. Vol. xxx., No. 1. **M. C. Carroll.** 'The Principle of Individuality in the Metaphysics of Bernard Bosanquet.' [A sympathetic resumé of Bosanquet's doctrine.] **A. K. Rogers.** 'Principles in Ethics,' II. [Continues discussion of how individual is to determine what is the best life for him. It must in the first place be one which satisfies his strongest personal interests, gives scope to his individual bent. But everyone also has moral interests, founded on the moral consciousness; these may not be so lively as the personal interests, but in the long run neglect of them is punished. Secondly, therefore, the best life will be one which has 'something to offer as a contribution to the permanent structure of reality'. This limits the field of choice; but within these limits personal interest must decide.] **D. S. Robinson.** 'Dr. Whitehead's Theory of Events.' [Accuses that philosopher of 'misty profundity'. 'What is meant by the community of nature to all? . . . What is the act of reference, the act of discrimination, the act of apprehension, the consciousness of the relation between a percipient and an external event, that is, what are these in terms of events? Is apprehension a property of events, and, if so, is it a property of all or only of some? Does the apprehension in an event know itself as a separate event from the event in which it is, or know the event of which it is a property, or know other events? Precisely what is the entity defined as the continuous ether . . . in terms of events? I simply cannot understand how the author can refuse to face such questions'.] **R. F. A. Hoernlé.** 'The Oxford Congress of Philosophy.' Discussion [A. H. Jones: 'The Basis of Significant Structures']. Reviews of Books. Notices of New Books. Summaries of Articles. Notes. List of Articles. Vol. xxx., No. 2. **R. B. Perry.** 'The Appeal to Reason.' [A long and interesting paper. More and more the age realises that what it needs is a better knowledge of human nature; all our construction must be founded on psychology. The new psychology, with its naturalistic method, tends to deny the influence of Reason in determining action. Now it is true that the Reason as conceived by the intellectualist is a myth; but the knowing mind, and evidentially tested belief, are obviously factors in determining action. We must apply the naturalistic method to discovering how in the concrete they do this. The writer goes on to examine the influence of reason on personal and collective action. Even where an action is first caused solely by instinct, reason may come in later as a real motive force. 'Rationalisation' is a normal and beneficial process.] **J. W. Scott.** 'Psychology and Idealistic Philosophy.' [Idealism never succeeded in showing how the values of the dialectical process are preserved within the finished dialectical result. May not the new psychology help us to solve the problem? It has begun a tentative focussing of an area of facts formerly untouched by science. (*To be continued.*)] **M. C. Carroll.** 'The Nature of the Absolute in the Metaphysics of Bernard Bosanquet.' [Tries to gather a connected view on this point from Gifford Lectures and other works. The principle of self-transcendence is the clue chiefly used.] Proceedings of the Twentieth Meeting of the American Philosophical Association. Notices of New Books. Notes.

BRITISH JOURNAL OF PSYCHOLOGY. Vol. x., Parts 2 and 3. March, 1920. **E. M. Smith** and **F. C. Bartlett** contribute a second article 'On Listening to Sounds of Weak Intensity.' [This gives an account of a

research which grew from tests used in selecting candidates for Anti-Submarine service during the War. The results of chief interest seem to be as follows: that variations are liable to occur in the relative efficiency of the two ears, such variations as were observed developing gradually and extending over a long period; that sounds of weak intensity may take as long as four seconds to produce their full effect; that conditions of diffuse illumination tend to induce in the listener an attitude which is judged to be favourable, but that in the early stages of learning to recognise a sound, darkness provides the more favourable condition. An attempt to make a qualitative analysis of the process of listening to sounds of weak intensity shows: that sound stimuli may often be perceived when they cannot be heard as sounds; that subjective sensations of extreme vividness often occur which however to some extent may be discriminated from sounds having an objective basis; that external distracting sounds are most disconcerting when they are irregular, or like the test sound, or of a familiar character; that on the whole a subject's judgment concerning the efficiency of his reactions is likely to be accurate only when that judgment is a favourable one.] **T. P. Nunn.** 'Psychology and Education.' [Summarises the recent developments in Psychology which are of most importance to Education, making special reference to the work on transference of training, the theories of McDougall and Shand on instinct and sentiment, intelligence tests and the theories of general and specific abilities.] **Chas. S. Myers** in 'Psychology and Industry', after giving a general survey of the field, records some interesting experiments of his own. During the last year of the war he was concerned in the selection, at the Crystal Palace, of candidates for training in hydrophone-listening for hostile submarines: "Tests were devised for keenness of hearing, accuracy of sound discrimination, memory for pitch, rhythm and quality of sound, power to discriminate between different pitches, rhythms and qualities, general accuracy, general information, ability to grasp complicated instructions, etc. The result of the application of such tests was that the training authorities at Portland reported that the first batch of lads sent them from the Crystal Palace was far away the best they had ever received, and that the next batch was even better still." **W. H. R. Rivers'** article on 'Psychology and Medicine,' is the Inaugural Address to the first meeting of the Medical Section of the British Psychological Society, and discusses the relation of the new section to the other sections. **W. B. Morton.** 'Some Measurements of the Accuracy of the Time-Intervals in Playing a Keyed Instrument.' [In an attempt to get at the times obtained by simultaneous tapping of different rhythms by the respective hands, Morton surmised that 'the two hands were not really acting independently but that it was the pattern made by the combined systems of movements which was presented to the player's attention'.] **May Smith and Wm. McDougall.** 'Some Experiments in Learning and Retention.' [Illustrates the great importance of effort or volition in rendering repetition effective in memorising. The results seem to show that in some persons practice in memorising might produce improvement of retention as well as of the power to commit to memory.] Other articles include 'The Present Attitude of Employees to Industrial Psychology,' by **Susie S. Brierley**; 'Suggestion and Suggestibility,' by **E. Prideaux**; 'The Single General Factor in Dissimilar Mental Measurements,' by **J. C. Maxwell Garnett**; and 'Observations on the De Sanctis Intelligence Tests,' by **W. B. Drummond**.

REVUE NÉO-SCOLASTIQUE DE PHILOSOPHIE. Année xxiii, No. 90. [May, 1921.] **P. Charles, S.J.** *Dante et la Mystique*. [A slightly rhetorical popular lecture. The main, and obviously true, thesis is that

Dante's "mysticism"—which the writer hardly distinguishes from his passion for formal symbolism—arises from no distrust of reason; the poet was no "sceptic". True, but is it equally true that he "had never doubted?"] D. Nys. *L'Homogénéité de l'Espace*. [Appeals to our experience of sensible bodies can prove neither that "real space" is Euclidean nor that it is not. The true question is a metaphysical one. Are the specifically Euclidean postulates possessed of a "metaphysical necessity" or are they not? The "space of philosophy" = "the complex of relations of distance which connect the bodies of the material universe" and must be regarded as homogeneous unless we accept the "illusory hypothesis" of absolute space. But "absolute geometrical space" is another matter. The geometer is really concerned with *figures*, and his question is whether a figure can be magnified or reduced without change of form. In point of fact, however, all physical facts seem to be representable by reference to a system of three (Euclidean) axes at right angles to one another, and there is no reason to regard the non-Euclidean geometries or the spaces of more than three dimensions as more than a device for rendering algebraical formulæ "more manageable and more fertile". But is Euclidean geometry itself at bottom more than a similar device? Is not the question whether "real space is Euclidean" something like the question whether the planet we call Jupiter is "really" Jupiter? And is not the assumption that "the philosopher's space" is an aggregate of relations of distance irrelevant to the issue? One naturally suspects that some convention about the measure of distance is surreptitiously introduced under cover of this definition. Mr. Nys's essay takes no account of the possibility that a non-Euclidean geometry of four dimensions may recommend itself for the estimate of intervals in the "space-time" continuum as naturally as Euclidean geometry for the measurement of spatial "distances".] A. Farges. *Deux déviations de la Théorie thomiste sur l'Action transitive*. [The supposed difficulties about transitive causality have arisen merely from the incompetence or ignorance of modern speculators. They are all refuted by anticipation in the Aristotelian doctrine of potentiality and actualisation. The writer takes things far too easily. It is difficult to believe that, e.g., Leibniz suffered from not having read or not having understood Aristotle's *Physics*. M. Farges is right in insisting on the importance of Aristotle's thesis that a *κίνησις* falls wholly within the *κίνητόν* and on the unreality of the supposed "transference of state" from agent to patient, but it is hard to see that the consequences he deduces from the Aristotelian theory of *κίνησις* are all compossible or necessary. Thus he, like Aristotle, assumes that in every action there is an "agent" and a "patient". May one ask which body is agent and which patient in the dynamical transactions between the earth and the moon? One might say that the earth "acts" on the moon, e.g., making its period of axial rotation correspond with its period of orbital revolution. But equally the moon "acts" on the earth, e.g., producing the bulge at the equator and four-fifths of the annual 50" of precession. Again Mr. Farges holds that Aristotelianism shows the absurdity of "action at a distance". Apparently he does not reflect that all action of any body "outside its own skin" is action at a distance. If a body can only act "where it is," in the sense "within the volume it occupies," no body can act at all on any other. If the proviso "where it is" is relaxed at all, there seems no objection in principle to action at any "distance". It is not on the face of it absurd to hold that in any sense in which it is true that a body can act only "where it is," every particle "is" present through the whole field of gravitation. Mr. Farges argues that the "law of the inverse square" in some way proves his, and Aristotle's, proposition. But physicists

would presumably be put to it to attach any precise sense to his assertion that the force of gravity undergoes a "loss of energy" in "passing from one point to another". It seems to the present writer that the notion of transitive action, however necessary for science, does involve difficulties which are not to be removed by mere eulogy of the *perennis philosophia* of "common sense". If common sense is "perennial," so are error and confusion. One would expect a really valid analysis of the facts of transitive action to reveal the necessity of a much more elaborate set of postulates than Aristotle, Mr. Farges, or common sense suspects. And as neither Leibniz, nor Descartes, nor Malebranche, nor Kant disputes the facts, the rather scornful tone with which Mr. Farges treats their analyses of the facts is scarcely justified. I do not know why Aristotle is given the credit of inventing the "undulatory" hypothesis. He denied that light takes any time to travel (*de Anima*, B7, 418b, 20), and thus, in spite of Mr. Farges, himself assumed *actio in distans*. I could wish Mr. Farges had told us his opinion of the curious theory by which Aristotle tries to explain at the end of the *Physics* why a missile does not fall to the ground as soon as it leaves the hand. The first of the mediæval "deviations" referred to in the title of the essay is the grotesque theory of some of the later scholastics that perception is due to material effluxes from the perceived body which somehow become immaterial on their journey to "consciousness"—the so-called "intentional species" (a fusion of Aristotle with Democritus); the second, and more subtle, is the theory of Suarez that the action is a modality not of the "agent," but of the "patient," and its attribution to the "agent" as its cause is a simple *denominatio extrinseca*; "action" is then properly not a "predicament," *valde analogice est accidens*. Mr. Farges holds Suarez possibly responsible for the "subjectivism, immanentism, and agnosticism" with which he charges all philosophy from Descartes onwards. His great error is to make action into a mere logical relation; action is not a logical relation, it engenders such relations. (This seems true and important, whatever one may think of Aristotle's account of action.) As for the "intentional species," they may still play a useful part in psychology, if we are careful to remember that they are not material emissions, but physical actions, and that they are not the objects of perception, but "determinants" of cognition. (This again seems a sound position.) But the real *crux* of the Aristotelian doctrine, its sharp distinction of "agent" and "patient," is accepted without discussion.]

A. Bouyssonie. *Les Principes de la Raison*. L. Noël. *Retour à la Scolastique?* A. Mansion. *La Philosophie en Belgique, 1908-1917*. *Comptes Rendus*.

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. Anno xiii., No. 1, January-March, 1921. G. Gentile. *Arte e Religione*. [For an acute criticism of this essay see the article of Chiochetti in *Rivista di Filosofia Neo-Scolastica* for March-April, 1921. Chiochetti seems wholly right in maintaining that Gentile's antithesis between art and religion as the extreme poles of the "subjectivity" and "objectivity" of the human spirit is incoherent in itself and false to all the facts. If the artist as such lives in a dream-world of sheer "subjectivity," we ought to find this character specially marked in the greatest art, e.g., in the poetry of Virgil, Dante, Shakespeare. Is any one of the three at all like a baby immersed, if babies really are so, in a purely fantastic "play" world of his own creation? There seems something radically wrong with a theory which would require us to give Byron higher rank as an artist than Sophocles. True art, to be sure, is not didactic; it is interested in "sense" for itself and not as a peg on which to hang universal "predicates". But to get to "subjectivity" in Gentile's sense we have to proceed, as Gentile does, to the crude con-

fusion of the logical "subject" of which predicates are affirmed with the psychological "subject" who affirms them. No wonder then that, as it is clear that without thought there would be neither art nor religion, Gentile has to add that there never has been any art or any religion which is "pure"; in other words, his Hegelian construction refuses to fit the facts. It is not even true that the higher the art or the better the religion the more nearly it approximates to Gentile's ideal. This is declared to be the "living contradiction" of art, but it is rather only the contradiction of Hegelianising theories about art. Chiochetti is justified in arguing that, as there never is "art which is not religion," the thesis and antithesis of the triad are, by Gentile's own showing, not real opposites, and that the "dialectic movement" through opposition to synthesis proves to be a sham.] **G. Calò.** *La Scuola, lo Stato e le Classi Sociali.* [The present educational crisis in Italy, marked by the revolt of many of the "liberals" against the claims of the "lay State" to control education, is complicated by the failure of the old "liberal" conception of the State as having the merely negative function of preventing encroachment by one individual on the rights of others. It is equally impossible to be content with a State that does nothing and with a "leviathan" which does everything. The true function of the "democratic national State" is to assist its members to win their personal freedom without suppressing their personal initiative. Hence the State has the right and duty not only to provide a minimum of education for all its members, but to ensure an education which tends to develop the sense of civic and national duty. The State cannot consent to abdicate these functions in the interest of a religious confession. On the other hand, a State monopoly of education is socially pernicious, but such a monopoly does not exist in Italy. If private schools do not flourish this is because (1) there is little widespread interest in education, and (2) not enough private wealth to support them. Gentile proposes to reduce the number of State "secondary schools" to a minimum while keeping the primary school in the hands of the State. This would mean in practice setting up a class barrier and creating a vast "educational proletariat". It is essential to foster a higher sense of responsibility in the teaching profession, and this might, in part, be done by distinguishing the State-conducted examinations, which might be the qualification for professional careers, from examinations held as tests of the pupil's knowledge and ability by boards representative of the teachers. The demand of the teaching profession for a free hand in the management of schools is thoroughly justified. Even the demand of syndicalists for the "proletarianising" of education is not likely, in the author's opinion, to lead to the evils which have been anticipated. We may look in future to see the technical education of artisans carried on by private organisations within the factory, etc.; the provision of the necessary general intellectual and moral culture will always devolve on the State.] **V. Cento.** *Linee d'una teoria generale dei rapporti fra Chiesa e Stato.* [Since State and Church have radically different ends, it would be absurd for the State as such to adopt a "confession"; it is precisely because the State recognises this difference of ends that its refusal to adopt a confession is not "irreligious". But Cavour's "free Church in a free State" is not a satisfactory ideal. Absolute "tolerance" of all "religious" organisations could only arise from pure indifference. E.g., the State could not without absurdity tolerate a sect which made prostitution a religious duty. It would be the State's duty to suppress such a sect in the interest of the liberty of all. The first duty of the State, as guardian of the liberty of all, is to maintain its own full autonomy. In the inevitable collisions between a dual State

and actual Church, "the authority which has the clearer consciousness of its proper limits" always proves to be really the stronger.] *Reviews.* Anno xiii., Fasc 2, March-April, 1921. **Amato Masnovo.** *Gli albori del Neo-Tonismo in Italia.* [A short historical study of the influence of the Spanish Jesuit, Baltasar Masdeu, who taught logic and philosophy at Piacenza at the opening of the nineteenth century.] **Emilio Chiochetti.** *La religione e il cristianismo nell'idealismo attuale di G. Gentile.* [An "advance" chapter from a forthcoming work on the philosophy of Gentile. The essay is an eloquent and able protest against the attempts of Gentile, in the true Hegelian spirit, to strip religion in general, and Christianity in particular, of all features which will not fit into an Hegelian scheme. It is, of course, particularly easy to show that actual Christianity has always insisted on the reality and "transcendence" of God, and is wholly incompatible with Gentile's "rigorous immanentism". Nor is Gentile the only philosopher who needs to be told that an "explanation" of religion is worthless unless it explains religion "not as the philosopher would like it to be, but as it is". I agree with Chiochetti that what Hegelian philosophers are pleased to patronise as the essence of Christianity is the merest travesty of the historical Christian faith.] **Cl. Baeumker.** *Pietro d'Ibernia.* [Peter of Ireland, the early teacher of St. Thomas, is probably identical with the Peter of Ireland who, as has recently been discovered, "determined" in a dispute held before Manfred, King of Sicily. The problem was whether "members" are made for "functions" or "functions" for "members," a question naturally suggested by the treatment of "ends in nature" in Aristotle's *Physics*. In the essay, of which only the first part is published, Prof. Baeumker discusses the use made in the "determination" of Aristotle and Averroes.] *Analisi d'Opere.* [Short notices of recent books.]

VIII.—NOTES.

"COMMON SENSE AND THE RUDIMENTS OF PHILOSOPHY."

WITH reference to Mr. L. J. Russell's candid explanation of the inaccuracies complained of, I certainly did not intend a charge of incompetence. At worst some carelessness was imputed. I agree that his very brief references to my book were not technically criticisms; but, in the broader sense of the term, to question a writer's meanings and methods, however slightly, is to criticise.

Of the passage referring to "sense-data" no more need be said. The serious inaccuracy (which led me wrongly to suspect Mr. Russell of having unconsciously created a fallacy in my argument which he proceeded to expose indirectly by a question) I now understand to be due to a slip in typing which missed correction. When, however, this unfortunate slip made me appear to say that a mental image begins to exist when something is recognised as the very same thing which we previously recognised, and Mr. Russell followed this up by the question "On what, then, is the recognition based?" it was, I think, perfectly natural for me to conclude that he had the second (misquoted) "recognised" in his mind, and referred by his question to what would have been an obvious fallacy on my part. I now suppose that he understood me to write "previously perceived," and conclude that what he really questioned was, not how recognition could be based on previous recognition, but how, by means of a mental image, we can recognise what is *not merely similar to, but identical with* what we before perceived.

May I be allowed to offer a brief reply to this question?

I take it to be a fact that we do recognise familiar persons and many other objects as not merely members of some specific class, but as identical each with himself or itself. Moreover, we think of them as themselves, not only when they actually reappear in our field of vision, but when they are certainly absent—i.e., beyond the present range of our sense-organs. That mental *something* which enables us both to recognise an object on its reappearance as its individual self, and to refer to it as such when it is not present, is what I call a "memory image". This is the fundamental type of "mental image". It may also be called a pre-conceptual idea; being the sort of idea which answers to the proper name of a person familiarly known and involves subtle distinguishing traits, many of which could be much better expressed by artistic portraiture than by verbal description; though the understood proper name is a subject-nucleus to which logical predicates may be subsequently attached. Some of these, such as "being a person," are of course understood from the first, but may be only very vaguely understood. The real subjects referred to are, on my view, individual molar bodies (with or without minds) which actually have peculiarities of shape, bulk, action, etc., distinguishing each of them from all the other instances of the lowest plural species to which it belongs. These peculiarities are originally and spontaneously observed through actual visual (and some other) sensations or consecutive series of such sensations (giving so many different aspects of the one body which remains visibly

present and so self-evidently identical with itself) and are thence incorporated in the image, or idea, of the body. This idea itself is inseparable from the judgment which refers all past glimpses and other impressions of the body to the fact of the substantial unity of the body having been related to our own sense-organs in particular ways at particular junctures of time and place. Since the idea, incorporating in a weakened form sufficient distinguishing marks of the particular body to which it refers, persists (at least as a defined mental potentiality, probably connected with some particular centre of cerebral action) until the real body reappears, there is no mystery in the real body, when it reappears and re-presents those marks in their full perceptual strength, being recognised as its individual self, and not merely as an instance of some type.

CHARLES E. HOOPER.

A FRENCH HISTORIAN OF THE PHILOSOPHIES OF THE MIDDLE AGES: FRANÇOIS-JOSEPH PICAVET (1851-1921).

On 21st May, at the age of 70, passed away M. François Picavet, Secretary of the Collège de France, Chargé de Cours at the Sorbonne, and Directeur d'Etudes at the Ecole des Hautes Etudes, formerly Editor of the *Revue Internationale de l'Enseignement*, for many years joint editor with the late M. Théodule Ribot of the *Revue Philosophique*, and also at various times a contributor to *MIND*. In him we lose one of the most distinguished Mediaevalists, the friend and correspondent of many scholars both in this country and the United States, and a teacher whose devotion to his work and lofty ideal of scientific probity were an inspiration to those who entered his classroom or approached him privately for help or advice.

François Picavet began his career as "Instituteur" in a Primary school. In 1870-71 he served with the Armée du Nord under Faidherbe. While teaching, he prepared himself for a University degree at Douai, followed by the "agrégation" in Philosophy, and the Doctorat ès Lettres. In 1888 he became lecturer at the Ecole des Hautes Etudes, later Directeur d'Etudes pour l'Histoire des Doctrines et des Dogmes (Section des Sciences Religieuses). His writings, besides many pamphlets, and "brochures,"¹ and contributions to different philosophical Journals in France and abroad, and to the "Grande Encyclopédie,"² include editions of writings of Condillac, Cicero, D'Alembert, and Kant; "Instruction Morale et Civique," 1888; "Les Idéallogues," 1891; "De Epicuro Novæ Religionis Auctore," 1891; "L'Education," 1895; "Gerbert," 1897; "Esquisse d'une Histoire Générale et Comparée des Philosophies Médiévales," 1905; "Roscelin, Philosophe et Théologien," 1911; "Essais sur l'Histoire Générale et Comparée des Philosophies Médiévales," 1913; "Littérature Française en Langue Latine" (in "L'Histoire de la Nation Française" series), 1921, etc., etc.

To M. Picavet is largely due the honour of restoring in France the study of the Philosophies of the Middle Ages, and he grouped together the leading Mediaevalists of France, Britain, and America in an Association for the development of Mediaeval studies. His writings are not, however, confined to the period generally so described, for he recognised no break in the history of thought. Epicurus, the Sophists, Stoics, Platonists, and Sceptics of Antiquity, the Encyclopædists, the Idealogists, Condillac, Maine de Biran, Kant, and the modern Théodule Ribot, have formed the

¹ E.g., "Abélard et Alexandre de Hales," 1896; "Averroës et les Averroïstes du XIII^e Siècle," 1902; "Valeur de la Scolastique," 1902, etc.

² "Porphyre," "Scolastique," "Thomisme".

subject of his writings as well. But his special interest was devoted to the historical study of the Philosophies of the Middle Ages, not only from a conviction that that period forms an essential part of the history of human development, but because the greatest Mediaeval thinkers appeared to him as philosophers of real value. With indefatigable zeal he set himself to the often arid and always laborious task of going, pen in hand, through the monumental tomes of the Schoolmen. No consciousness of the labour spent led his clear and well-balanced mind, set above everything on "la recherche de la Vérité," to magnify or overestimate the actual result, often small out of all proportion to the toil. That intellectual integrity gave special value to his work, while the disinterestedness of his position, on topics where too often sectarian bias is discernible in Catholic and Protestant alike, lent added authority. M. Picavet's great work defines itself as the study of the relations of theology and philosophy from the Carolingian Renaissance onwards, and his writings generally, more definitely the "Esquisse" and the "Essais," are the basis for a vast General and Comparative History of the Philosophies of the Middle Ages. In 1906 the Faculty of Letters of the Sorbonne instituted for him a Lectureship in the History of the Philosophies of the Middle Ages. This historical study of the evolution of Christianity, free from all prejudice or bias, brought to his classes men and women of all tendencies, and free-thinker and Catholic priest listened alike to a teacher who respected the tenets of all sincere seekers after truth. Starting from the period when primitive Christianity set itself to evolve a rational system by which to justify its doctrines, M. Picavet showed the part played by Neo-Platonism, or Plotinism, in a union with Greek philosophy which profoundly modified the development of Catholicism. He drew attention to the influence of Plotinus in the course of Mediaeval thought, Christian, Jewish, and Arab, notably as the informing spirit of the Scholastic Philosophy, however much the outer form and formulæ derive from Aristotle.¹ And he traced the Plotinian strain through the later centuries, especially interesting himself and his students in the complex and fascinating developments of the seventeenth century.

During the long and painful illness which led to his death, M. Picavet refused to abandon his administrative work at the Collège de France; much less his students. Two weeks before he passed away, though worn to a shadow, he lectured to his students on the last occasion on which he left his home alive. His wide sympathy made him a friend not only to his students but to all whom he could help. During the war, when his home in the north was in the hands of the Germans, and his only son, a "sous-officier de mitrailleuses," was for four months reported missing, then known to be a prisoner of war, and later exposed to the still greater horrors of a German Reprisal Camp, M. Picavet, quietly carrying on his work, was a source of strength and hope to many. He was the correspondent and helper of numbers of soldiers from his native place, whose families were cut off from them in the invaded provinces. Before his students he set continually the highest ideal of work and scientific probity. He never forgot that while the immediate aim, the examination, must be faced as an entrance to a career, they were men and women preparing for a wider purpose, to live life well. To those of us who had the privilege of working under him he stands for all that is finest in the French national character, simplicity, sincerity, humanity, clear-sighted and sane judgment, and an unswerving loyalty to Truth and the Ideal.

M. P. RAMSAY.

¹ Cp. M. Emile Boutroux's communication on this subject to the *Académie des Sciences Morales*, *Esquisse*, pp. vii.-viii.

MIND ASSOCIATION.

THE 21st Annual General Meeting of the Association was held on Saturday, 9th July, in Trinity College, Cambridge. Prof. S. Alexander of Manchester University was elected President for 1922, and it was agreed to meet at Manchester next year at a convenient time in July to be fixed by the officers, and to hold a Joint Session with the Aristotelian Society and the British Psychological Society, the details to be arranged by the President, Treasurer, and Editor. Mr. H. Sturt having resigned the office of Hon. Secretary after holding it for 20 years was elected an Honorary Member of the Association. Mr. G. R. G. Mure, of Merton College, Oxford, was appointed Hon. Secretary. The Hon. Treasurer and Hon. Auditor were re-elected, as were the Vice-Presidents, with the addition of Prof. G. F. Stout, on his vacating the office of President.

After a Dinner held in the Guest Room, Trinity College, Prof. James Ward, on behalf of 58 members of the Mind Association, formally presented Prof. G. F. Stout with a portrait-drawing of himself by Mr. James Paterson, a silver flower bowl, and a pair of silver candlesticks, in recognition of his long service as Editor of *MIND*, from 1892 to 1920.

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